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Worldwide Report

EPIDEMIOLOGY

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26 FEBRUARY 1987

WORLDWIDE REPORT EPIDEMIOLOGY

CONTENTS

HUMAN DISEASES

INTER-AFRICAN AFFAIRS

- Occurrence, Treatment of Chloroquine Resistant Malaria
(Djibouti LA NATION, 30, Oct 86) 1

BANGLADESH

- Editorials Urge Vigor in Fight Against AIDS
(Dhaka THE NEW NATION, 24 Nov 86; Dhaka THE BANGLADESH
OBSERVER, 28 Nov 86) 3

- Appropriate Strategy Needed 3
Public Apathy Deplored 5

- Malaria Breaks Out Along India, Burma Borders
(Jalal Nawaz; Dhaka THE NEW NATION, 20 Dec 86) 6

Briefs

- Gastroenteritis in Naogaon 7
Bogra Diarrhea Deaths 7
Diarrhea, Gastroenteritis Deaths 8

BARBADOS

- Government Decides To Scrap General Practice Service
(William Bradshaw; Bridgetown DAILY NATION, 2 Dec 86) 9

BELIZE

Briefs

Confirmed AIDS Case 10

BRAZIL

Briefs

Leishmaniasis Cases in Ceara 11
AIDS Cases Increase 11
1986 Measles Statistics 11
Leper Cases Detected 11
Dengue Cases Diagnosed 11

CANADA

AIDS Diagnostic Test, Insurance Requirement Discussed
(Vancouver THE SUN, 12 Dec 86; Toronto THE TORONTO STAR,
29 Dec 86) 12

New Diagnostic Test 12
Insurance Requirement Controversy, by Dana Flavelle 13

Norwalk Virus Cases Reported in Manitoba, Windsor Area
(Vancouver THE SUN, 8 Dec 86; Windsor THE WINDSOR STAR,
19 Dec 86) 14

Rural Manitoba Cases 14
Windsor, Essex County, by Richard Brennan 14

Meningitis Cases, Deaths Reported in Ontario Area
(Robert Brehl; Toronto THE TORONTO STAR, 31 Dec 86) 16

CZECHOSLOVAKIA

Briefs

Influenza Epidemic in Bratislava 17
Flu in Slovakia 17

GREECE

Minister Provides Statistics on AIDS
(Athens I VRADYNI, 8 Jan 87) 18

GRENADA

New Medical Centers Opening With Swedish Assistance
(St Georges THE GRENADIAN VOICE, 20 Dec 86) 19

GUINEA

Briefs

Child Vaccination Program	20
---------------------------	----

GUYANA

German Measles Vaccine To Be Used in Schools Program (Paula James; Georgetown GUYANA CHRONICLE, 25 Nov 86) ...	21
---	----

HONG KONG

Papers Report on Government Policy Toward AIDS (Various sources, various dates)	22
British, PRC Screening Proposals, by Sa Ni Harte	22
Suspected Lies on Statistics, Editorial	24
New Policy Considered, by Amanda Agee	25
Dangerous Trend Seen, by John Dikkenberg	27
Expert Discusses Fight Against Communicable Diseases (Carolyn Watts; Hong Kong HONGKONG STANDARD, 5 Dec 86)	28
Anticholera Publicity Budget Tripled for 1987 (Hong Kong SOUTH CHINA MORNING POST, 13 Dec 86)	30
Statistics on Prevalence of Hepatitis-B Given (Hong Kong SOUTH CHINA SUNDAY MORNING POST, 14 Dec 86)	32
Panel To Combat Lung Diseases Recommended (Kris Chan; Hong Kong HONGKONG STANDARD, 25 Nov 86)	33
Paper Explains, Reports on Rabies Danger (Hong Kong HONGKONG STANDARD, 2 Dec 86)	35
Interview With Official, by Kathy Spillett	35
Neglected Cases Enumerated	36
Cancer Said No 1 Killer (Hong Kong SOUTH CHINA MORNING POST, 13 Dec 86)	38

INDIA

Briefs

Suspected AIDS Case	39
Polio in Madhya Pradesh	39
Rheumatic Heart Disease	39
Malaria in Bengal	40

INDONESIA

Briefs

Malaria in Irian Jaya	41
-----------------------	----

IRELAND

- Expanded Medical Facilities Needed in Battle Against AIDS
(Dublin IRISH INDEPENDENT, 13 Dec 86) 42

- Briefs
Slaughterhouse Cleanup 43

JORDAN

- Health Official Claims No AIDS Cases in Country
(Venita Maudsley; Amman THE JERUSALEM STAR, 8 Jan 87) 44

MALAYSIA

- Mass Rubella Immunization in 1987
(Penang THE STAR, 24 Dec 86) 45

NIGERIA

- Health Minister Reports 477 Yellow Fever Deaths
(Paris AFP, 10 Jan 87) 46

- Briefs
New Cases of Yellow Fever Reported 47

PAKISTAN

- Briefs
Minister on AIDS 48

PEOPLE'S REPUBLIC OF CHINA

- Studies on Mother-Infant Transmission of Hepatitis-B
(Luo Shixin; Beijing ZHONGGUO YIXUE LUNTAN BAO, No 5,
15 Aug 86) 49

- Study on Chromosome Fragility in Patients With Viral Diseases
(Xiao Bai, et al.; Beijing YICHUAN XUEBAO, No 3, Jun 86) 50

- Distribution of Herpes Simplex and Cytomegalorirus Antibody in
Different Age Groups in Guangzhou
(Chang Ruxu, et al.; Beijing ZHONGHUA LIUXINGBIN XUE
ZAZHI, No 5, 10 Oct 86) 57

- Ultrastructure of Vibrio Mimicus
(Xie Nianming, al al.; Beijing ZHONGHUA WEISHENGWUXUE
HE MIANYIXUE ZAZHI, No 5, Sep 86) 58

- Abnormal Hemoglobin Studied
(Beijing ZHONGHUA YIXUE ZAZHI, No 8, 15 Aug 86) 60

SOUTH AFRICA

Fast Southward Migration of AIDS Noted (Jaap Boekkooi; Johannesburg THE STAR, 3 Jan 87)	67
Top Medical Experts Put AIDS in Perspective (Johannesburg THE STAR, 4 Jan 87)	68
AIDS Booklet Said To Be Useless (Liz Clarke; Johannesburg THE SUNDAY STAR, 4 Jan 87)	71
Rabies Spread in Natal (Johannesburg THE STAR, 6 Jan 87)	72

SPAIN

AIDS Reported Widespread in Prison Population (Mariano Sanchez; Madrid TIEMPO, 15 Dec 86)	73
--	----

SRI LANKA

Briefs Malaria Epidemic in Colombo	76
---------------------------------------	----

TURKEY

Briefs Infectious Hepatitis Epidemic Warning	77
---	----

ANIMAL DISEASES

BANGLADESH

Briefs Cattle Disease in Rajbari	78
-------------------------------------	----

CANADA

Briefs Rabies Outbreak in Saskatchewan	79
---	----

NIGER

Livestock Vaccination Campaign To Begin (Soule Manzo; Niamey LE SAHEL, 4 Nov 86)	80
---	----

PLANT DISEASES AND INSECT PESTS

INDIA

Drought Causing Teakwood Disease in Maharashtra (New Delhi PATRIOT, 18 Dec 86)	82
---	----

OCCURRENCE, TREATMENT OF CHLOROQUINE RESISTANT MALARIA

Djibouti LA NATION in French 30 Oct 86 p 4

[Text] In 1981, African nations belonging to the World Health Organization (WHO) adopted a regional antimalaria strategy recommending the administration of a single dose of chloroquine to treat malaria, as well as protection of newborns, children under the age of 5 and pregnant women by means of regular doses of chloroquine. New facts, including the propagation of parasites resistant to chloroquine, have just forced the WHO to review its strategy on the continent.

Confronted with malaria, the some 540 million inhabitants of the African continent may be grouped into four categories. First of all, there are those who can rest easy. They live in Lesotho, Sainte-Helene or the Seychelles. In those three countries, malaria has never existed or has disappeared. The WHO even claims there is no risk of infection in these areas that are not receptive.

Next come the inhabitants of countries under heavy surveillance because the disease has been eradicated there (the case of La Reunion in 1979 and Mauritius), but its reappearance and transmission are still possible. Ethiopia and Cape Verde are a sample of the countries that may in medium-range terms join this second group because the risk of infection is only limited to certain zones of those countries and there are good prospects for interrupting the disease, according to the WHO. This is also the case of Botswana, Swaziland and Zimbabwe, where it is hoped that an improvement in measures to fight the disease will have a marked effect.

Comoro Islands

For the rest of the countries -- the great majority -- located in tropical forest areas or the savanna, the nightmare will continue to reign for a long time to come. Transmission of malaria remains intense. The number of bites by infected mosquitos, per person per year, varies between 40 and 140, a situation deemed unequaled in the world. Unlike in the countries in the first categories named, nine times out of ten, the parasite in question here is the plasmodium falciparum, the deadliest of the four types of germs responsible for malaria. The consequence: Some 5 percent of all children under the age of 5 continue to die from the direct or indirect effects of the disease, which still accounts for 15 to 20 percent of all outpatient consultations.

The fight against malaria is therefore unanimously recognized as having priority by the WHO Regional Committee for Africa, which has set the goal of reducing the rate of mortality and morbidity attributable to malaria to the lowest possible level, through a rational use of antimalaria medications (in this case, chloroquine), in order to treat patients and protect vulnerable groups. It is a strategy now compromised by the appearance of resistance of the plasmodium falciparum to chloroquine.

Nor is this a new phenomenon because it was observed for the first time on the continent in 1978 in the Comoro Islands. At that time, nothing pointed to the current situation. In 1979, Kenya was included on that blacklist, followed by Madagascar and Tanzania in 1980. After a false lull in 1981, the phenomenon of the germ's resistance to chloroquine rapidly spread: Uganda, Zaire and Zambia in 1982, Burundi, Malawi, Mozambique in 1983, Angola, Gabon, Namibia in 1984, Cameroon, the Congo, the Central African Republic, Swaziland and Zimbabwe in 1985.

While the problem has so far occurred only in East, Central and Southern Africa, the West African nations are not totally safe. Although disturbing, the situation must not be cause for alarm, according to the WHO. Actually, in many areas of these countries where the phenomenon has manifested itself, chloroquine would still be effective and should remain the medication of choice, both for treatment and prevention of the infection.

Single Dose Not Advised

However, there have been some changes in the administration of chloroquine. A single dose for treatment, since it might promote the emergence and transmission of resistant strains of plasmodium falciparum, is no longer advised. In addition, concerning the regular taking of medicines to prevent manifestations of the disease, programs aimed at protecting newborns and children under the age of 5 on a large scale are no longer recommended, for several reasons. There is their high cost and reduced effectiveness, given the irregularity or frequent interruption of the taking of tablets. Furthermore, it is thought that the regular taking of drugs for prevention over a long period of time may inhibit the appearance of a protective immunity naturally acquired, while increasing the risk of undesirable reactions to the products used.

Consequently, the WHO recommends, for newborns and children under the age of 5, discontinuing the systematic administration of chloroquine for prevention, advising in its place the rapid and suitable treatment of actual cases of the disease. It is a position with a sound scientific basis, but which only time will tell if it is accepted. At the outset, it appears difficult to persuade a mother who has already lost one or two children or the children of others to the disease to wait for the disease strikes before attacking it. It is also difficult to be certain that once the disease has hit, mothers will take the vigorous attitude recommended.

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CSO: 5400/78

EDITORIALS URGE VIGOR IN FIGHT AGAINST AIDS

Appropriate Strategy Needed

Dhaka THE NEW NATION in English 24 Nov 86 p 5

[Text]

The Director General of the World Health Organisation (WHO) has estimated that there would be upto three million cases of AIDS (Acquired Immune Deficiency Syndrome) in five years from now. The Director General Dr Halfdan Mahler also revealed the frightful prospect that the disease may grow explosively in Central and Latin America and is knocking on the doors of Asia.

We already have reports of AIDS cases being detected in India, and in Bangladesh, in the present state of its health service and public health awareness, it is not certain that AIDS cases will be detected as soon as they have invaded this country. Therefore although experts have reassured us some time ago that there is no AIDS in the country, complacency will only accelerate the advance of the dreaded killer.

Contrary to popular belief, AIDS is not largely confined to western countries and has claimed a large number of victims in African countries and probably originated from African green monkey. After AIDS visits a developing country its spread may be even faster for lack of vigilance and control. It should be understood that the arrival of AIDS in this country

is only a matter of time. The time thus afforded by circumstances could have been most fruitfully utilised for taking preventive steps. We are not in a position to say whether or not the three years have been wasted but apparently there is little sign of a preparedness. The mass media have not been utilised for creating public awareness about the disease.

The most likely sources of infection are blood banks, brothels and contaminated injection syringe. The use of disposable syringe has not been made mandatory in the hospitals and health centres. We are not aware whether the specially vulnerable groups like prostitutes are being covered under any universal blood test (In many developing countries availability of testing kits has posed a problem). But in our country the most vulnerable groups are likely to be not the inmates of brothels or their patrons as long as they have no infective contact with the notorious pleasure spots of the world. If an aberrant sexual practice is not a significant part in the pattern of sexual behaviour of Bangladeshis, it is as much a pride as a prophylactic. But even if homosexuality is remote from our culture, drug addiction is increasingly becoming a part of it; and drug addicts who use contaminated needles are indeed a vulnerable group.

It is hoped that the health authorities and AIDS prevention experts will formulate a strategy for AIDS prevention which is appropriate to our situation and take the public into confidence in the matter. AIDS that is knocking on the door must be freed out.

Public Apathy Deplored

Dhaka THE BANGLADESH OBSERVER in English 28 Nov 86 p 5

[Text]

The disease AIDS is now being referred to in the West as a polydemic, a term much more emphatic than epidemic, suggesting a peril whose dimensions are impossible to measure. The number of victims in America now exceeds fifty thousand. In Africa more than two million people are known to have AIDS, and no figures are naturally available about communities who have not undergone checks. Even Russia which at first treated the infection as a peculiarly capitalist concern has reported several cases, as has India. All experts agree that the world is threatened with a pestilence the like of which has not been in centuries.

After an initial flurry of excitement, the public in this country appears to have settled down to apathy about this dreadful diseases. So has the government. We have not heard of active measures against the spread of the AIDS virus; no efforts are being made to introduce special health checks for visitors from AIDS-affected areas. We seem to be waiting for the virus to strike in virulent form before we wake up.

This apathy and indifference is inexcusable and may prove criminal. For AIDS is no longer a far-fetched threat, but one which may any day appear in a form which we, with our inadequate resources, may be totally incapable of tackling. To admit AIDS victims to ordinary hospitals would be to endanger the lives of other patients, but we have no facilities nor the money to set up special clinics overnight.

The first precautionary measure, as elsewhere, is to warn the public regularly of the sources of the disease. Squeamishness should not prevent us from emphasising repeatedly that homosexuality and drug abuse are, to speak metaphorically, the principal conduits which spread the infection. Any person in contact with an AIDS victim is likely to be affected. These are facts which have to be clearly recognised and not evaded in any campaign against AIDS. It is not however necessary to grow alarmed, and panicky. Panic will also aggravate the situation. What we need is a clear-eyed policy, but a policy that must be pursued systematically and with vigour and without distractions.

MALARIA BREAKS OUT ALONG INDIA, BURMA BORDERS

Dhaka THE NEW NATION in English 20 Dec 86 p 1

[Article by Jalal Nawaz]

[Text]

Malaria, which was almost eradicated from the country under the 14-year malaria eradication programme from 1961 to 1975 has again broken out in the country. The mosquito population all over the country has increased rather menacingly in the recent months.

According to knowledgeable sources, malaria has broken out particularly along the country's eastern border with India and Burma. Sporadic cases of malaria have also been reported from inside the country.

Teams from health services department have been despatched to investigate the reported cases of malaria in various parts of the country.

The escalation of malaria along the border was attributed to ineffectiveness of pesticide spray in the border areas in all the three countries and typical living habits of a particular species of mosquito—*balabacansis*—which carries malaria germ in

hilly areas. It comes out around mid-night and bites its prey and returns to its hideouts without touching wall, floor, roof or any place or materials which contain sprayed pesticides.

Only four out of 25 types of mosquito carry malaria germ. They are *anophelis minimus*, *anophelis sandipis*

hilipinesis and *balabacansis*.

The mainland of Bangladesh

is almost free from malaria but

some stray cases have been detected, according to official sources. The stray cases occur when any person carrying malaria germ comes to the mainland and contaminates others.

Collective steps for eradication of malaria once for all were discussed by the representatives of Bangladesh, India and Burma in Calcutta recently. All the countries which exchange information on the issue from time

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BRIEFS

GASTROENTERITIS IN NAOGAON--Naogaon, Dec. 19--Death due to Gastroenteritis in all eleven upazilas of Naogaon is still mounting. As per local health department's statistics, 126 persons have already died and 13,831 were attacked. Non official figure of death is much more than the official figure. "Rotavirus" infection is stated to be the reason for such huge attack and death due to gastroenteritis opined a physician of Modernised Hospital, Naogaon. Three rectal swabs were sent to ICDDR,B (International Centre for Dirrhoeal Diseases and Research, Bangladesh) by the Civil Surgeon, Naogaon for Chemical test for accurate diagnosis and to dispell the popular apprehension of the outbreak of Cholera. But no report has yet been received by the office of the Civil Surgeon, Naogaon. Paucity of pure drinking water in the rural areas, prevailing unhygienic condition of the markets, ignorance to abide by the elementary rules of hygiene, poor resistance due to malnutrition and lack of adequate medical facilities in the far-flung rural areas are believed to be the reasons for such huge large number of attack and death. [Text] [Dhaka THE BANGLADESH OBSERVER in English 20 Dec 86 p 7] /7358

BOGRA DIARRHEA DEATHS--Bogra, Dec. 10--Diarrhoea has now spread over all the 11 upazilas of Bogra claiming many valuable lives in the district. All the efforts made by the local Health Complexes along with special team deputed in Health Complexes, specially for the disease have become unsuccessful and the disease has taken an epidemic form in some of the upazilas in the district. According to a statistical report received from the Bogra Civil Surgeon's Control Room, 77 persons died of the disease and 7902 persons were attacked during the last 23 days but non-officially both the figures of death and the attacked persons were learnt to be double. The worst situation has been prevailing in Adamdighi and Shibgonj. One of the Field Staffs who was in a hurry in Adamdighi Upazila said to this Correspondent that the present Diarrhoea situation was almost out of their control. He also added that the antidotal medicine supplied and staff working in the field in the upazila are quite inadequate to combat such an worst situation prevailing there. The remedial medicine so far supplied by the concerning district office to the Upazila Health Complexes are as follows:--ORS-15918, Capsules and Tablets-25942. [Text] [Dhaka THE BANGLADESH OBSERVER in English 13 Dec 86 p 7] /7358

DIARRHEA, GASTROENTERITIS DEATHS--Kishoreganj, Dec. 1--Diarrhoea and Gastro-Enteritis have claimed lives of at least 200 persons in different parts of Kishoreganj district during the last two months. About 2,000 persons were also suffering from the diseases. According to the reports, most of the victims are children and females. The affected areas are Tarail, Katiadji Hossainpur, Mitamain, Karimganj and Kishoreganj sadar upazilas. Scarcity of pure drinking water unhygienic living condition and taking of adulterated food stuffs are the causes of the outbreak of these diseases. Everyday, a large number of patients were attending the health complex and govt. Dispensaries. But in most of these centres, there was an acute scarcity of medicines, it is alleged. Supply of oral rehydration saline and tablets are not available. An official source confirmed the outbreak of the diseases but he refused to disclose the number of deaths. However, he said that necessary medicines were being sent to the affected areas. [Text] [Dhaka THE BANGLADESH OBSERVER in English 3 Dec 86 p 7] /7358

CSO: 5450/0067

GOVERNMENT DECIDES TO SCRAP GENERAL PRACTICE SERVICE

Bridgetown DAILY NATION in English 2 Dec 86 p 1

[Article by William Bradshaw]

[Text]

GOVERNMENT has put the brakes on the General Practice Service (GPS).

And as a result of this move, the National Health Service Board is terminating the services of its staff of six.

According to a dismissal notice sent to one of the employees, the NHS board was informed at a meeting held on November 12 that it was Government's policy not to go ahead with the General Practice Service as previously envisaged under the National Health Scheme (NHS)... and consequently, the board took a decision to terminate the services of all staff members.

"I am directed to inform you that you are hereby given three months' notice of termination of your service with effect from December 1, 1986, and will be awarded any severance and vacation benefits for which you may be eligible.

"I wish to thank you for your loyal and devoted service and to assure you that every effort is being made to find you suitable alternative employment," said the letter, which was signed

by the Director of the NHS, Dr. Frank Ramsey.

Those receiving notice last Friday include the secretary to the director, and the two clerical officers. The director, the senior accountant and the stenographer/typist are yet to receive their letters.

At that meeting, the NHS board was also asked to give alternative suggestions to the original plan for the NHS. The new Democratic Labour Party Government's decision not to proceed with the GPS comes in the wake of its decision last June to scrap the NHS as proposed by the last administration.

Under the original scheme, general practitioners were to play an integral part in the NHS, providing a service in their offices which was complementary to that given in the island's polyclinics.

However, Government now plans to provide the health services in the polyclinics, as part of an "affordable comprehensive health coverage programme" that is widely accepted and within the resources of the country, according to Minister of Health, Keith Simmons.

Last June, as he announced the scrapping of the original NHS, Simmons said the polyclinics would be a key factor in the health policies of the DLP Government, and would be upgraded to meet this demand.

According to him, the NHS as proposed by the Barbados Labour Party (BLP) administration did not afford Barbadians that element of choice they desired.

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CSO: 5440/050

BELIZE

BRIEFS

CONFIRMED AIDS CASE--The Belize City Hospital this week confirmed that a case of AIDS (Acquired Immune Deficiency Syndrome) has now been officially recorded in Belize. The victim, a 32 year old Belize City mother of eight children, has been transferred to the Belmopan Hospital because the new capital's hospital has better isolation facilities than the city institution. This newspaper has been monitoring, for several months, cases where there were symptoms indicating the presence of the AIDS virus. What the hospital had been doing was telling relatives of such patients to take them abroad for expert diagnosis and treatment. In this case, however, doctors sent blood and other samples to the Center for Disease Control in Atlanta, Georgia, and the results came back positive. The news was officially broken on the government radio system. The best way to avoid contact with the AIDS virus is to limit your sexual activity to as few partners as possible, if you insist on being promiscuous. But sexual fidelity now becomes an ideal. [Text] [Belize City AMANDALA in English 28 Nov 86 p 1] /7358

CSO: 5440/051

BRAZIL

BRIEFS

LEISHMANIASIS CASES IN CEARA--The SUCAM [Superintendency for Public Health Campaigns] has detected an outbreak of Leishmaniasis in Aquira County, in the outskirts of Fortaleza, Ceara State. A hundred cases have been diagnosed, and the most seriously ill have been hospitalized, while the lighter cases are being treated at home. [Summary] [Brasilia Domestic Service in Portuguese 2100 GMT 3 Dec 86 PY] /12232

AIDS CASES INCREASE -- The Sao Paulo health secretariat has reported that there has been an 80-percent increase in AIDS cases in Sao Paulo. It added that the monthly average of reported cases has jumped from 25 to 45 cases in the last 5-month period. The secretariat reported that to date 770 cases have been reported. [Text] [Sao Paulo Radio Bandeirantes in Portuguese 1500 GMT 10 Jan 87 PY]

1986 MEASLES STATISTICS -- Brazil registered 63,224 cases of measles in 1986, of which 2,000 resulted in death. The states of Ceara, Rio Grande do Sul, Espirito Santo, and Parana registered the largest incidence. [Excerpt] [Brasilia Radio Nacional da Amazonia in Portuguese 0900 GMT 5 Jan 87 PY]

LEPER CASES DETECTED -- The Labor Medicine Service of the National Steel Company has detected 28 cases of leprosy at the President Vargas plant in Vota Redonda in Rio de Janeiro. In addition to leprosy, 18 employees have caught leukopenia, an illness caused by the reduction in white globules in the blood. [Excerpt] [Brasilia Domestic Service in Portuguese 2100 GMT 5 Jan 87 PY]

DENGUE CASES DIAGNOSED -- Niteroi [Rio de Janeiro State capital] Health Secretary Heitor Braga is concerned with the increase of dengue cases in the region, where nearly 3,000 people have caught the disease this month. [Summary] [Rio de Janeiro O GLOBO in Portuguese 13 Jan 87 p 1 PY]

/9604

CSO: 5400/2023

AIDS DIAGNOSTIC TEST, INSURANCE REQUIREMENT DISCUSSED

New Diagnostic Test

Vancouver THE SUN in English 12 Dec 86 p A8

[Text]

Canadian Press

People who suspect they're infected by the AIDS virus may soon be able to find out with a 10-minute diagnostic test touted by its Canadian distributor as the fastest and easiest in the world.

The test, which has proven more than 99-per-cent accurate in studies, can be performed in a doctor's office or laboratory, Tarrnie Williams, vice-president of technology for Pilot Laboratories Corp., told a news conference in Toronto Thursday.

Although the test will be available in Europe, Africa and the Far East in early January, the Vancouver-based company must still obtain approval from authorities to market the test in Canada and the United States.

The testing kit, which Williams said can be used with a minimum of training, is also being developed for home use.

"Accurate and early diagnosis are the only ways to begin stemming the spread of AIDS," said Williams. "Those diagnosed as positive can then take precautions and hopefully not spread the disease."

Called a Single Use Diagnostic System, the device consists of a disposable plastic container or cartridge into which test ingredients are poured with a specimen of blood serum from the patient.

"Accurate and early diagnosis are the only ways to begin stemming the spread of AIDS."

— Pilot Laboratories vice-president
Tarrnie Williams

Should AIDS antibodies be present in the blood — indicating the person has been previously exposed to the AIDS virus — a small window in the bottom of the test cartridge will turn blue.

The test cartridge was developed by Murex Corp. of Norcross, Ga.

Murex vice-president Jerry Hossom refused to say how much the testing would cost but indicated it would be no more expensive than existing AIDS tests.

In studies conducted in California, the Murex Test has found to be more sensitive than others, correctly identifying as negative those people who had previously tested as false-positives.

Dr. Stan Read, a specialist in infectious diseases at the Hospital for Sick Children in Toronto and member of the National Advisory Committee on AIDS, said the new test will mean patients will not have to go through the anguish of a long wait for results.

Insurance Requirement Controversy

Toronto THE TORONTO STAR in English 29 Dec 86 p A2

[Article by Dana Flavelle]

[Text]

Life insurance companies are requiring some insurance applicants to take mandatory blood tests for AIDS, a move called insensitive and premature by a Metro homosexual counselling group.

"This causes me a great deal of concern," Mark Whitehead, director of the Toronto Counselling Centre for Lesbians and Gays, told The Star.

"Tests don't prove anything, such as whether someone will be diagnosed eventually with AIDS, and (positive results) can cause an individual a great deal of anxiety."

In the past year, several life insurance companies have introduced mandatory blood testing as a prerequisite on some policies, and refuse to insure anyone who tests positive for the virus.

As early as November, 1985, an official at the Canada Life Assurance Co. told The Star that some applicants were being tested for the disease. And a Manufacturers Life Insurance Co. doctor said any applicant who refused the test would likely be refused coverage.

Strong measures

More recently, Pat Tomalin, manager of underwriting for the New York Life Insurance Company in Calgary, told Canadian Press that her company now requires AIDS screening tests on the basis of age and coverage.

For example, she said, those under 30 requesting \$1 million in life insurance must be tested for exposure to acquired immune deficiency syndrome.

Tests are required for anyone between 31 and 45 requesting \$500,000 coverage, while those over 46 must take the test for coverage over \$200,000.

Charles Black, vice-president of the Canadian Life and Health Insurance Association, said the insurance industry believes it must take strong measures to protect itself against the financial risks posed by the deadly virus.

"Anyone who tests positive for the virus won't be eligible for life insurance, at least until we know more about the disease," Black said. The association represents 111 life insurance companies.

But Whitehead said that, because there are so many unanswered questions about the disease, insurance companies should delay implementing such a controversial policy.

"I think they should be a little more careful in looking into the consequences of such an action," he said.

'Black Plague'

Some 823 Canadians have become victims of AIDS, which has no known cure. Of those reported to have contracted the disease, 432 have died.

"Every new study that comes along seems to show higher numbers of people are being exposed to the virus," Black said. "AIDS is becoming the Black Plague of the 20th century."

Homosexuals, intravenous drug users and hemophiliacs are considered most likely to be exposed to the AIDS virus.

However, not everyone exposed develops the disease.

Still, Black told Canadian Press studies indicate 25 to 30 per cent of those carrying the virus will eventually die and that the risk to insurance companies is too great. He did not indicate how many companies have refused to insure those who have been exposed to the virus.

A spokesman for an AIDS support group in Calgary said it is discriminatory to deny life insurance coverage to carriers of the disease.

"At least 80 per cent of these people won't go on to develop the disease, so this practice is very discriminatory," Doug Morin said.

The executive director of AIDS Calgary added that blood and urine tests used to detect the virus are often inaccurate.

Earlier this year, The Star reported that a committee of Ontario lawyers and doctors recommended insurance companies be allowed to request potential AIDS victims to submit to antibody tests.

The health law committee of the Canadian Bar Association-Ontario said last April that such tests could be required for someone wishing to buy insurance if a risk was indicated on medical grounds.

/7358

CSO: 5420/8

NORWALK VIRUS CASES REPORTED IN MANITOBA, WINDSOR AREA

Rural Manitoba Cases

Vancouver THE SUN in English 8 Dec 86 p A2

[Text]

Canadian Press

WINNIPEG — Four nursing home residents in rural Manitoba have died after contracting a gastro-intestinal virus, says a provincial health spokesman.

Dr. Margaret Fast said the four residents were among about 280 elderly Manitobans who have been hit by the Norwalk virus during the last nine weeks.

Fast said the disease has hit nine rural nursing homes and is difficult to control.

"It's one of those infections, that, because it's spread in the community, it's impossible for us to do anything about," she said in an interview.

Fast said three of the four people died shortly after catching the disease and one person died two weeks later.

Fast said the symptoms of the disease, which include nausea, cramps and vomiting, are particularly hard on frail senior citizens.

Windsor, Essex County

Windsor THE WINDSOR STAR in English 19 Dec 86 pp A1, A4

[Article by Richard Brennan, STAR Medical Reporter]

[Excerpts]

Norwalk: It's enough to make you sick.

Yes, the little known Norwalk virus has invaded Essex County, making a lot of people's lives miserable.

The uninformed are calling it flu, others are even mistaking it for food poisoning.

The symptoms are very similar: vom-

iting, diarrhea and generally a rotten feeling for up to 48 hours.

"It's a-w-f-u-l," says Dr. Phil Fioret, association medical officer of health for the Metro Windsor-Essex County Health Unit, who had a brush with Norwalk, himself.

Identified less than a decade ago, Norwalk, named after Norwalk, Ohio, where it was discovered, has swept through the offices, factories, nursing homes, stores, businesses and schools

in Windsor and Essex County.

"It has been a serious situation among our firefighters," Windsor Fire Department Deputy Chief Earl Turpin-Carroll says.

"We have about five to six firefighters off daily," says Turpin-Carroll of the 277-member firefighting force.

Fioret says Essex County has been particularly hard hit by the virus.

There has been a "tremendous number" of patients passing through the emergency doors of Metropolitan Hospital complaining of flu-like symptoms, and it has taken its toll on the hospital staff, says Dorothy Camp, executive director of patient care.

"It has been rather significantly evident with our staff and patients coming through the emergency department," Camp says.

Hiram Walker employees also have been hit hard by the virus. "It's not an epidemic but there is a definite in-

crease in the number of people off sick," company spokesman Al Milne says.

Norwalk also has breathed through the halls of Massey Secondary School.

"We've had an awful lot of people off with colds, sore throats and viral infection. We've really noticed it in the last 2½ weeks," says the high school principal Val Motruk.

/7358

CSO: 5420/9

MENINGITIS CASES, DEATHS REPORTED IN ONTARIO AREA

Toronto THE TORONTO STAR in English 31 Dec 86 p A11

[Article by Robert Brehl]

[Text]

Health experts insist there's no reason for the public to panic over recent meningitis deaths but they say people should be aware of some of the disease's mysterious qualities.

"It is a very tricky disease," said Dr. Harding le Riche, an internationally renowned expert on public health and disease control with more than 40 years work in the field.

"Sometimes it can be very dangerous, more often it is not."

Ontario has been registering about 60-70 meningitis cases a year since 1981. This year, there have been 75 — not abnormally high — but eight people have died.

And lately, some alarming cases have surfaced:

□ Today, a 31-year-old de Havilland worker and a 3-year-old boy are in Oshawa General Hospital with meningococcal meningitis, its most contagious form. Both are improving; Michael Schmitz has been upgraded to satisfactory and moved from intensive care, the boy is in fair condition.

□ Monday, a 4-month-old Guelph baby died of meningitis, but not the same type afflicting the others.

□ Earlier this month, 16-year-old Scarborough student Richard Persaud died from meningococcal meningitis. Two other students in his school are recovering from

meningitis-type symptoms.

"There's no reason to believe these cases are related," said Dr. Jacqueline Carlson, Ontario's senior medical consultant for communicable diseases. "What's happening now is every case is being scrutinized."

"There is always one or two people in hospital in Ontario with meningitis," she said. "You'll find there will probably be another one in a few days."

In fact, she said, up to 25 per cent of people carry the meningococci bacteria in their throats and noses at one time or another, healthy and unaware.

Medical minds don't know why, all of a sudden, several meningitis cases have popped up together

around Metro.

And this, le Riche, a University of Toronto professor emeritus of epidemiology and preventive medicine, said is what makes it a "terribly mysterious" disease.

"For some reason, which we don't know, people lose their immunity and for other reasons, which we don't know, there are more healthy carriers walking around at any given time," le Riche said.

He said most of the responsibility detecting the disease lies with the public. Here are some pertinent facts:

□ It is spread by sneezing, coughing and kissing.

□ It often shows up as a fever,

headache, vomiting and sometimes a stiff neck.

□ It spreads most commonly amongst people in close contact, such as at day-care centres. More cases occur in winter because more people are forced together indoors.

□ Severe illness is commonly caused within 24 hours, but sometimes the incubation period stretches 12 days, according to the Centre for Disease Control in Atlanta.

□ Patients often become confused, drowsy and irritable and a stupor or coma can follow.

□ Prompt treatment with antibiotics is usually life-saving. Before

antibiotics, the disease was mostly fatal. Today about 90 per cent of all patients recover immediately.

Le Riche said the best way to control the disease is to do just what public health in Ontario is doing.

And that is giving the antibiotic rifampin, which came on the scene in 1969 and destroys meningococcal bacteria, to people in close contact with anyone diagnosed with meningitis.

Dr. David Korn, Ontario's Chief Medical Officer of Health, said public health departments also watch the broad group of people, such as schoolmates and co-workers after meningitis has struck.

"Our best strategies are surveillance and antibiotics," Korn said.

CZECHOSLOVAKIA

BRIEFS

INFLUENZA EPIDEMIC IN BRATISLAVA--The anti-flu committee of the Slovak Health Ministry noted in Bratislava yesterday that almost 52,000 cases of influenza were registered in Slovakia this week. Flu virus type A has been isolated. It is different from viruses that have caused epidemics in the last few years. A considerable part of the population has no antibodies against this type of virus. The committee said that the supplies of necessary medicines is sufficient and [word indistinct] necessary measures for medical services. [Excerpt] [Prague Domestic Service in Czech 0700 GMT 19 Dec 86 LD] /12624

FLU IN SLOVAKIA--The number of persons suffering from influenza in Slovakia exceeded 100,000 last week. [Summary] [Bratislava PRAVDA in Slovak 30 Dec 86 p 2] /9604

CSO: 5400/3006

GREECE

MINISTER PROVIDES STATISTICS ON AIDS

Athens I VRADYNI in Greek 8 Jan 87 p 1

/Excerpt/ The number of AIDS carriers in Greece is estimated to be between 4,000-5,000! This disturbing fact was confirmed yesterday by Minister of Health and Welfare G. Gennimatas who announced the speedy establishment --by the end of March-- of two AIDS first aid health care units in Athens and Salonica and one AIDS immunological center in Salonica.

From what Mr Gennimatas said it follows that the problem has assumed great proportions in our country also. Specifically, in 1986, 35 AIDS cases were recorded of which 20 were fatal! It is estimated that 13 percent of the homosexual population and 4 percent of the drug addicts have been affected.

Mr Gennimatas asserted that the spread of AIDS to hemophiliacs who are subject to having many blood transfusions and to prostitutes is being controlled. Nevertheless, he stressed that controls should be extended to homosexuals and drug addicts but, as he noted, intervention into their hideouts is difficult.

Mr Gennimatas announced that by the end of March two first aid health care units will be set up in Athens and Salonica and one immunological center in Salonica. One such center is operating at present in Salonica. Another such center is also operating at the Evangelismos Hospital in Athens. Also, three immunological control units are operating at the Athens Medical School, Salonica and Ioannina.

A new intensive drive will soon begin to inform the population about AIDS. An overall expenditure of 1 billion drachmas will be made for this purpose which will include radio and television, schools, the armed forces, hospitals, pharmacies, sailors and inhabitants of tourist areas. At the same time, pamphlets will be given out providing instructions relating to AIDS (besides those that have been put out for homosexuals and drug addicts) and will be distributed to schools, hospitals and hotels. Seminars will also be held. Mr Gennimatas said that the percentage of persons in Greece with AIDS is small compared to other countries.

5671

CSO: 5400/2457

NEW MEDICAL CENTERS OPENING WITH SWEDISH ASSISTANCE

St Georges THE GRENADIAN VOICE in English 20 Dec 86 p 3

[Text] Two new medical Centres, one at Hillsborough, Carriacou and the other at Crochu, St. Andrew's were declared open by Health Minister, Danny Williams this week. They were the first of seven centres to be opened as part of a \$2.2 million project undertaken by Radda Barnen (Swedish Save the Children Federation).

The Hillsborough Medical Centre, valued at about \$300,000 was opened on Sunday. It is a 20 room building with special areas for dentistry, nutrition and Health Education programmes. A permanent dentist is expected to provide dental assistance to the Carriacouans on a daily basis. They will no longer have to come to Grenada or visit for once a week dental services.

The Crochu Medical Centre on the other hand, valued at \$200,000 is a smaller building, but more efficient than the former centre there. Work on these projects began nine months ago.

Speaking at the opening ceremony, Mr Williams expressed sincere appreciation for these buildings, which is a boost towards health for all by the year 2000, the minister's aim.

Other centres to be opened in the near future are: Snug Corner, Happy Hill and Grand Roy in St. George's, Union, St. Mark's and Mt. Carmel in St. Andrew's.

Radda Barnen is one of Sweden's largest voluntary, non-political and non-religious organisation and this, the first time in the history of the organisation (founded in 1919) that it is operating in the Caribbean. In addition to the seven new centres, the project calls for the repair of ten others (already completed), some of the furniture and equipment for the seven new units, equipment for handicapped children and the printing of new Growth Charts and Ante-Natal Records.

A four-person team from Radda Barnen, arrived in Grenada about 18 months ago and their departure from Grenada, at the completion of the project is expected to be completed by March 1987. Members of the team include; gynaecologist Dr. Ebrstroem, pediatrician, Dr. Elfstrand, administator, Dr. Ulf Holmberg and public health nurse, Ms Hariet Birkham.

BRIEFS

CHILD VACCINATION PROGRAM--The medical condition of children under 5 years of age is cause for concern and deserves our special attention. Despite the absence of reliable data, it is estimated that 165 infants die out of 1,000 live births. It is also estimated that, of the 280,000 infants born each year, 40 to 50 die before they are 1 year old. In Guinea, too, 80,000 to 100,000 children under the age of 5 die each year from a combination of six diseases which can be prevented by vaccination (measles, polio, tuberculosis, diphtheria, tetanus and whooping cough) together with malaria, diarrhea-related diseases and malnutrition. Moreover, many other children who have contracted the diseases are poorly cared for and will suffer indelible consequences. In Conakry, the 90,000 children from birth up to 3 years of age will be vaccinated against diphtheria, whooping cough, tetanus and polio; 60,000 of the 90,000 children will also be vaccinated against measles at the same time. The vaccination programs in Conakry will be the beginning of the process. They will be carried out in three phases beginning on 24 November 1986 until February 1987. The interval between the two phases will be a month. This program is being organized by the Ministry of Health and Social Affairs with the help of UNICEF (Italian fund), WHO, USAID/CCCD and the assistance of other ministries (Information and Culture, Interior and Decentralization and Planning and International Cooperation). The three prefectures of Conakry are included and 45 vaccination stations will be set up, among them 10 permanent centers, the Centers for Maternal and Infant Health. One objective of this program will be to complete the vaccination series among children who have been partially vaccinated and accelerate the process to enable our children to grow up properly and meet the health challenge of all in the year 2000. [Text]

[Conakry HOROYA in French 12 Nov 86 p 4] 9479

CSO: 5400/5

GERMAN MEASLES VACCINE TO BE USED IN SCHOOLS PROGRAM

Georgetown GUYANA CHRONICLE in English 25 Nov 86 p 5

[Article by Paula James]

[Text]

THE Ministry of Health will shortly introduce a vaccine for Rubella (German measles) into its school vaccination programme.

The introduction of this vaccine is being facilitated by a programme of co-operation between the Guyana and Venezuelan Governments.

A Venezuelan medical team is now in Guyana to assist in the introduction of the programme.

The team will participate today in a half-day seminar arranged for the Georgetown vaccination team to acquaint them with the procedures for the administration and storage of the vaccine. A similar seminar will be held on Friday for regional managers of the expanded immunisation programme.

Yesterday, the team along with Venezuelan Ambassador to Guyana, Mr. Hugo Alvarez Pifano met and held discussions with Health Minister, Dr. Richard Van West-Charles, and handed over a set of vaccinations, syringes and cold boxes, along with educational material on immunisation against Rubella.

Rubella or German measles, can have dangerous effects on pregnant women. It can cause miscarriages,

congenital malformation of the foetus, such as deafness, cataract, loss of sight and vision impairment, cardiac disorder and mental retardation.

The Ministry will be moving to immunise Guyanese females between the ages of 7 to 12 years. The vaccination is effective for life.

Minister Van West-Charles said that the new programme is to protect the next generation from the negative effects that can result from a contraction of German measles.

Meanwhile, the Health Minister, during yesterday's discussions, thanked the Venezuelan Government for its support, noting that the Guyana Government is happy to co-operate with Venezuela in this programme.

Health is one vehicle, whereby we can demonstrate to our peoples that our countries are co-operating, the Health Minister said.

And Venezuelan Ambassador, Mr. Alvarez Pifano, thanked the Guyana Government for the support and interest shown in the programme, expressing the hope that co-operation in other areas could be realised and maintained.

PAPERS REPORT ON GOVERNMENT POLICY TOWARD AIDS

British, PRC Screening Proposals

Hong Kong SOUTH CHINA MORNING POST in English 19 Dec 86 p 3

[Article by Sa Ni Harte and agencies]

[Text]

THE Hongkong Government has rejected a British proposal calling for AIDS-screening of all students planning to study in the United Kingdom.

Local officials refused to co-operate and in a letter to the Foreign and Commonwealth Office this week described the proposed scheme as unnecessary.

The Hongkong Government believes there is no need to impose AIDS-testing on UK-bound students because the disease is not prevalent in the territory.

The drive against AIDS - Acquired Immune Deficiency Syndrome - in Britain has accelerated since the formation of a high-powered cabinet committee chaired by the Deputy Prime Minister, Lord Whitelaw, in November, to draw up a strategy to combat the public health menace.

Chinese health authorities, faced with the refusal this week by foreign students to take the AIDS test, yesterday ruled that if the foreign students which to stay in Chinese universities for another year or more they would be required to undergo tests.

New students coming into China would be required to produce a certificate from

their own countries stating they did not have the disease.

Britain's Foreign and Commonwealth Office (FCO) recently sought views from commonwealth countries, British embassies and the Hongkong Government on its proposal.

Apart from testing international reaction, it wanted to assess the technical feasibility of the scheme.

In Hongkong, there were about 4,000 applications for student visas to the UK last financial year.

Scholarships offered to Hongkong students include one from the British Council, four to five from the FCO and the Sino-British Fellowship Trust respectively and one from the Chinese-British Return Students Association.

Hongkong Government sources said the proposal had been turned down after exhaustive consultation between the relevant department heads. The official thinking, one source said,

was that students did not number among high-risk AIDS groups such as homosexuals, haemophiliac and intravenous drug users.

If Hongkong supported the proposal, it could give the public a wrong impression of the extent of the AIDS problem, the source warned.

The source said Government policymakers were concerned that co-operation with the British AIDS plan would provoke resentment among Hongkong students, whose condition of acceptance for entry to British institutions already includes passing a medical examination, for having to undergo another test at their own expense.

According to official statistics released in November, at least 69 people in Hongkong have been exposed to the AIDS virus - 44 of them haemophiliacs - and three have died. The three AIDS victims contracted the disease abroad.

The scale of the British attack on the problem was demonstrated by the membership of the high powered committee.

It includes the Foreign Secretary, Sir Geoffrey Howe, Health Secretary, Mr Norman Fowler, Home Secretary, Mr Douglas Hurd and Scottish Secretary Mr Malcolm Rifkind.

A Chinese health official, who identified himself only as Mr Xu, said some students already in China indicated they would refuse to take the test which the Health Department said would be needed to remain in China for beyond another year.

The tests were ordered in a new directive put out by the Health Ministry and the State Education Commission.

Those found to have AIDS would be asked to go home because China had neither the facilities nor the experience to deal with the disease.

Tests proposed for the 34 foreign students and teachers, including Americans, Canadians, British and Japanese, at Xian's Communications University were cancelled yesterday after nobody arrived to take them, Canadian teacher Ms Karen Thornton, 23, said.

Ms Thornton, a teacher in Xian, said students, teachers

and their dependents had objected to the test on grounds of privacy, worries over hygiene and fear that the fact of having taken the test might be used against them in future.

Mr Xu said while some foreign students were refusing, saying the medical equipment in China may not be up to standard, others had already volunteered for testing.

Mr Qi Xiaoqiu of the epidemic prevention department said local health offices in Beijing, Guangzhou, Xian and Harbin were ready to test volunteers.

There are about 10,000 foreigners in China, including 4,000 students. There were no plans to test foreign business people, diplomats or other foreign residents.

Mr Qi said blood samples would be examined either locally or in Beijing at the Research Institute of Preventive Medical Science.

China has had one reported case of AIDS - an Argentine tourist who died in June last year in a Beijing hospital after arriving for a tour.

- All agencies.

Suspected Lies on Statistics

Hong Kong SOUTH CHINA MORNING POST in English 20 Dec 86 p 22

[Editorial]

[Text]

THE worldwide fear of AIDS is provoking governments into taking measures which often owe more to panic and ignorance than to reason. One of these measures is to impose restrictions on possible victims of the disease. Another is to disguise the extent of the disease. Both will do little to stem the spread of a sickness which will take many more lives before its course is halted.

Both types of government action directly affect Hongkong. Britain has suggested that all Hongkong students who wish to study in the UK must be tested for AIDS. This is one of a package of measures the British Government is considering in the battle against the disease. Most are sensible, such as a campaign to tell people the simple precautions they can take, and facilities for anonymous voluntary blood tests. There is a growing lobby in the UK, however, matched by similar demands in the United States, for the Government to take much firmer action, such as quarantining victims, and even criminal prosecution of those with the AIDS virus who infect others.

Disguising the extent of the spread of AIDS is a perhaps more obvious threat to Hongkong. The disease is here, it is spreading, as it is everywhere else in the world, and it has been reported from all the neighbouring countries of the region. AIDS is here to stay.

But these nations depend on tourism as a major source of foreign exchange, and the attractions of Manila and Bangkok are well-known. Any decrease in tourism would have major repercussions for the Philippines

and Thailand. It is in their interests, therefore, to minimise the impact AIDS has had.

We must state our disbelief at the level of reported AIDS in both Manila and Bangkok. It is not without precedent for governments to lie about this disease, or to refuse to co-operate with World Health Organisation experts. This happened when the extent of the disease first became apparent in certain African nations. They became so horrified at the rapidity with which AIDS was spreading, however, that they eventually relented. When they did so, it finally became apparent that AIDS had established itself as a heterosexual disease, indeed in one such country 80 per cent of all new AIDS cases were contracted through heterosexual activities.

It is a disgrace that any government should try to minimise the threat that AIDS poses. In the United States, more than 179,000 deaths are expected by 1991 - 54,000 of them occurring in that year alone. Asian governments should not hypocritically assume this means

people in the US are more wanton, or that homosexuality is any more rife there than it is in their own land. The Centres for Disease Control in the US was the first scientific institution to recognise the severity of this epidemic and reporting procedures are much better organised there than most other nations. No government can afford to be complacent. Like all diseases spread by sexual contact, the AIDS virus recognises no frontiers, nor does it worry too much about its victims' sexual preferences. The Hongkong

Government official who said AIDS tests for UK-bound students were unnecessary because students were not in the high-risk categories of homosexuals, intravenous drug users or haemophiliacs, was demonstrating appalling ignorance. Whatever its origins, AIDS is no longer a disease exclusively afflicting homosexuals.

There is no solution to the disease itself. Once the virus enters the blood stream, there is a one in 10 chance, or less, that it will lead to the symptoms which invariably prove fatal. The virus does not of itself kill. Instead, it lays the victim open to infections of every sort by attacking the body's own natural system of defences. It can take up to five years for the virus to allow the onset of the sickness which will prove terminal. It is thus vital that governments all over the world start to take realistic measures now. They cannot afford to wait too long.

The measures are simplicity themselves. The most important is a campaign of education and a plentiful supply of free condoms.

The education campaign must not pull any punches, even though it may offend sensibilities. It must hammer home the message that the only safe form of sex is monogamous. Rigorous testing of donor blood must be instituted, and there must be adequate provisions for voluntary tests which protect the subject's anonymity. It must also be emphasised that AIDS is spread by sexual contact and not by simply touching a victim, or breathing the same air. It must also be stated that many AIDS victims contracted the disease through transfusions of contaminated blood: theirs is the real tragedy. Those whose blood tests prove positive to the AIDS antibodies are not contagious, and should not be treated as lepers.

A system of international certification may also be considered. Nobody who travelled gave much of a thought to the need to carry inoculation certificates when these were mandatory a few years ago. How much objection would there be now if an "AIDS-tested" card were introduced?

New Policy Considered

Hong Kong HONGKONG STANDARD in English 30 Dec 86 p 5

[Article by Amanda Agee]

[Text]

TO help reduce the risk of AIDS spreading in the territory, the Government is considering a new policy for public education, the chairman of the AIDS Advisory Committee disclosed yesterday.

What specific steps will be taken will depend on decisions reached by

the Committee in a series of upcoming meetings, said Dr E K Yeoh, who is also a consultant in the Medical and Health department.

Currently, dissemination of information to the public is done primarily through medical practitioners, the media, pamphlets, and a telephone service which offers counselling and advice on risk reduction measures.

New measures may include distribution of post-

ers, the use of more explicit language in the publications, and the introduction of AIDS education in schools.

However, there are many "public implications" the Committee must consider before deciding on specific steps, Dr Yeoh said.

He pointed out that "some of the language used in education pamphlets may offend the sensibilities of the average individual."

In addition, he noted that AIDS education in schools would involve other departments besides Medical and Health, and would be of concern to teachers and parents as well.

Despite the relatively low incidence of AIDS in the territory — only three people have been found to have the disease — Dr Yeoh nonetheless maintains there is no room for complacency.

"The disease is in Hongkong and has the potential to spread," he said.

Dr Yeoh said that the idea of the Government enforcing an AIDS "screen testing" for visitors coming into Hongkong would be both "impossible" and "ineffective" in controlling the disease.

First of all, he said that Hongkong residents leaving the territory would still be able to contract the disease in other countries and then spread it here upon their return.

And to suggest that all people coming into the territory be tested, he said

would be impossible because it would mean a three-

month quarantine for each individual in order to allow the AIDS antibody to show positive.

"There is no way we would be able to quarantine about 5 million people for three months all the time," he said.

Dr Yeoh also stressed that although there are guidelines for the treatment of AIDS patients or those suspected of having the disease, precautions against all infectious blood viruses would be "taken for each and every patient who comes into hospital" and not just those with AIDS.

In the period from August 1985 to September 1986, Dr Yeoh said that 30,012 tests for the human immunodeficiency virus (HIV) which causes AIDS have been performed as part of the Government's surveillance programme. Sixty-nine of these were found to be positive with only three individuals discovered to be actively suffering from the disease.

Dr Yeoh feels that these figures are a fair representation of the extent to which the disease has spread in Hongkong.

He noted that high risks groups such as homosexuals, intravenous drug users, haemophiliacs, or patients attending clinics for treatment of sexually transmitted diseases were deliberately targeted in the programme.

Dangerous Trend Seen

Hong Kong SOUTH CHINA SUNDAY MORNING POST in English 23 Nov 86 p 7

[Article by John Dikkenberg]

[Text]

THE AIDS death toll in Hongkong now stands officially at three — but there are those who question this seemingly disproportionate figure.

Hongkong University psychology lecturer Dr Norman Murphy, an AIDS expert, claimed earlier this year that the official figure "was only the tip of an iceberg."

He called on the Government to legalise homosexuality.

"Because of the current law, the Hongkong homosexual network has been driven underground, thus making partners difficult to trace," he said.

A police spokesman said this week that prosecutions by the Special Investigation Unit — the anti-homosexual unit — appeared to be winding down, pending expected legislation.

He added that it had been agreed that Hongkong AIDS victims could come forward anonymously without interference by the authorities, or threat of exposure.

According to Medical and Health Department figures, a further 69 Hongkong residents have been diagnosed as being AIDS carriers — meaning that they have been in contact with Acquired Immune Deficiency Syndrome and the HTLV III virus.

This is a minuscule number compared with the rest of the world, where stage one AIDS, which stands about a one-in-10 chance of fulminating into the invariably fatal stage three, has reached epidemic proportions, particularly in Africa, Sydney and San Francisco.

But Hongkong, a city of constant tourist turnover, squalid vice dens, and a population just as prone to the one-in-10 homosexual-heterosexual demographic breakdown as other communities, is a prime "profile" for becoming an international "AIDS centre".

"Hongkong may become the AIDS capital of the world," Dr Murphy warned, even though some people continue to claim that homosexuality — still the major source of AIDS — is not as widely practised in Chinese communities as overseas.

Of the 69 confirmed Hongkong AIDS contact cases reported by the Medical and Health Department to the end of September, 44 are haemophiliacs, including 15 schoolchildren. The youngest of these is seven.

Of the remainder, 10 were confirmed homosexuals, one declared himself to be bi-sexual and three

were heterosexual, according to a Medical and Health Department spokesman.

This indicates that prostitutes may have fallen victim to the virus, which is an ominous trend.

Haemophiliacs are regularly transfused with a blood-clotting agent known as Factor 8. This is drawn from several thousand blood samples, the spokesman said.

However, the number of blood samples involved multiplies the chances of catching AIDS.

"We think that most of the haemophiliacs were contaminated by Factor 8 samples imported from the United States," the Medical and Health Department spokesman said.

"This is based on the fact that the US was our prime Factor 8 supplier at about the time when Hongkong haemophiliacs were being contaminated last year.

"The US was then still producing Factor 8 under an old formula in which the preparation was manufactured unheated.

"The new Factor 8 formula is prepared under revised guidelines which guarantee that it is uncontaminated.

However, Hongkong biochemist Dr Albert Cheung said some of the haemophiliacs may have been contaminated last year by locally-produced Factor 8, which is manufactured by the Hongkong Red Cross blood bank.

He feels the source of contamination is likely to have been a combination of the imported Factor 8, perhaps even from countries outside the US like Australia, and the local supply.

Pointedly, in pre-heating days, Australia used a lot of Hongkong-manufactured Factor 8 because — Australians believe homosexuality is anathema to Chinese and only rarely practised in cities like Hongkong.

The other 25 non-haemophiliac AIDS carriers were referred either from VD clinics (six), private practices (10) or Government hospitals and clinics (nine.)

None of the diagnosed AIDS carriers has been a drug user, another high risk group because they can contract the virus by using dirty needles.

Nor has any Hongkong woman been contaminated through artificial insemination, another source of AIDS transmission, according to the statistics.

/9312

CSO: 5450/0060

EXPERT DISCUSSES FIGHT AGAINST COMMUNICABLE DISEASES

Hong Kong HONGKONG STANDARD in English 5 Dec 86 p 7

[Article by Carolyn Watts]

[Text]

THE fight to eradicate Hepatitis B has become the focus of the struggle against infectious diseases in Hongkong, a Chinese University professor said yesterday.

"Hepatitis B offers one of the great prospects for the control of disease in the next thirty years," said Professor Gary French, of the university's medical faculty.

Prof French was speaking on the first day of a health and welfare conference to mark the 30th anniversary of United College.

The theme of the conference was "Thirty Years' Health and Welfare Services in Hongkong," and Prof French's topic was the history of and outlook for communicable diseases.

He pointed out that over the past 30 years the territory has seen a striking decline in the incidence of communicable disease like diphtheria, tuberculosis and polio.

The decline was mainly due to mass vaccination and improvements in sanitation

and housing, he said.

He stressed, however, that the battle against some infectious diseases is still far from over.

"Hepatitis B is a disease which is endemic in Hongkong and about 10 percent of people are carriers," commented Prof French.

"With Hepatitis B there is not only the danger of acute hepatitis (infection and inflammation of the liver) but it can cause cirrhosis and cancer of the liver," he said.

He added that the disease is thought to be responsible for many deaths from liver cancer, Hongkong's second biggest cause of death.

A vaccine against the disease already exists. Since most people who carry the virus catch it from their mothers soon after birth, babies born to women who carry the virus are now vaccinated against the disease.

"If we vaccinate all newborn children before they become infected, we shall see a highly significant drop in the carrier rate and in the cancer rate which is associated with it," Prof French said.

Other papers at yesterday's conference included an overview on the growing trend toward diseases of the heart and circulatory system by Professor David Bassett of the University of Michigan.

Mr John Chambers, Secretary for Health and Welfare, gave an optimistic round-up of progress made

by the Medical and Welfare Services over the past 30 years.

He noted that the infant mortality rate has fallen from 66.4 per 100,000 live births in 1955 to 7.6 in 1985.

He added: "In 1984, the expectation of life at birth reached 73.2 years for men and the astonishing figure of 70 for women, among the highest in the world."

/9312
CSO: 5450/0058

ANTICHOLERA PUBLICITY BUDGET TRIPLED FOR 1987

Hong Kong SOUTH CHINA MORNING POST in English 13 Dec 86 p 4

[Text]

IN the wake of this year's cholera outbreak, the publicity budget of the Municipal Services Branch's hygiene division has been tripled for next year.

The hygiene division intends to drastically increase publicity efforts. Last year it spent \$300,000 on publicity and will spend \$900,000 this year.

The Urban Council has urged the division to take a more dynamic approach to warning the public of the dangers of unhygienic food. It supplies two-thirds of the division's funding with the remainder coming from the Regional Council.

The three priority groups the division wants to reach are the elderly, students and those involved in the food trade.

The cholera outbreak is believed to have been made worse by illegal hawkers.

The district boards are at present considering a paper prepared by an Urban Council working party on how to tackle the problem of illegal hawkers.

But the best way forward at this stage is considered to be educating the public on the dangers.

The division will also be busy next year publicising new food legislation.

On January 1 new regulations bringing mineral water within the jurisdiction of food legislation will come into force. Up to now, because of a legal loophole,

mineral water has not been defined as a food and there have been no controls over its content.

Another division of the Municipal Services Branch, the pest control advisory section, is playing an important role in containing the spread of disease through rodents and insects.

Pest control officer Mr

G.W. Chau said the rodent problem has improved dramatically.

In the 1960s about 1,000 rodents were killed each day. The number is now about 500 but Mr Chau pointed out the large rise in population since then.

As well, he said "with people paying more for accommodation they are demanding higher standards".

He said the section now concentrates on education about the problem and prevention.

However, there is still a large number of complaints about rodents.

He said these mainly came from public housing estates rather than private accommodation and are mainly concentrated in the New Territories.

He suggested the problems could be more psychological than real.

"Some people are not happy to move out to the New Territories. It upsets their lifestyle and complaints could be more an expression of that dissatisfaction," he remarked.

The section also concentrates on controlling the problem of malaria.

Mr Chau said outbreaks of malaria have been mainly confined to the New Territories and the growing urbanisation of the area is reducing the problem.

He said mosquitoes are not urban dwellers and like dense vegetation and stagnant water.

"Tackling the problem has centred on environmental methods. We can eliminate favourable conditions by, for instance, cutting grass and manipulating water flow."

Water flow can be controlled by removing boulders and building embankments, while anti-malarial oils can be used in the water, where there is no human contact, to suffocate mosquito larvae.

/9312
CSO: 5450/0057

STATISTICS ON PREVALENCE OF HEPATITIS-B GIVEN

Hong Kong SOUTH CHINA SUNDAY MORNING POST in English 14 Dec 86 p 4

[Text]

ABOUT half the people in Hongkong have been infected by hepatitis B, a viral infection endemic to this region which attacks the liver and is a major cause of cirrhosis and liver cancer.

About one person in 10 is also a chronic carrier of the disease, and infection can come from contact with the blood or the body secretions from any one of about 550,000 individuals.

Hepatitis B is 100 times more infectious than AIDS, the deadly viral disease that attacks the body's immune system and for which a cure has yet to be found.

For infants born of carrier mothers, hepatitis B can be almost as deadly.

In Hongkong, 11 per cent of all pregnant women are carriers of hepatitis B who are likely to pass the infection on to nine out of 10 of their babies. And most of these babies are likely to become carriers in their turn, spreading the disease through the community.

The chance of these children dying from liver problems in adulthood is also high — with a mortality rate of 50 per cent for male babies and 14 per cent for female.

Adults infected with hepatitis B have a

10 per cent risk of becoming chronic carriers of the disease. They are less vulnerable than infants, probably because their immune systems are stronger and have a better chance of overcoming the virus.

To break the chain of transmission from mother to child, the Government has mounted a multi-million dollar campaign to screen all pregnant women in public and subvented hospitals and to vaccinate all babies at risk.

This program covers 75 per cent of births in Hongkong. However, screening and testing for births taking place in private hospitals are decisions left to individ-

ual doctors and parents without publicly funded help.

Hepatitis B currently accounts for two thirds of the local cases of liver cirrhosis and 80 per cent of the incidence of liver cancer, both major killers in the territory.

Hepatitis A, transmitted by the oral/faecal route, is another infection which causes inflammation of the liver and which has infected most people here.

Unlike hepatitis B, however, this infection does not lead to long-term liver complications and there are no chronic carriers of the disease.

/9312
CSO: 5450/0059

PANEL TO COMBAT LUNG DISEASES RECOMMENDED

Hong Kong HONGKONG STANDARD in English 25 Nov 86 p 5

[Article by Kris Chan]

[Text]

AN estimated 2,000 local cotton industry workers may have byssinosis — a lung disease that develops after prolonged breathing of cotton fibre dust.

And a University of Hongkong lecturer feels it is serious enough that the Government should set up a committee to combat the disease.

The figure is an approximation based on a study conducted by a group of academics who found evidence of byssinosis in 2.3 percent of the cotton workers they questioned.

As the local cotton textile industry has a workforce of over 10,000, the problem of byssinosis can be considered quite important, said Dr Ong Say Gark, a lecturer at the University of Hongkong in community medicine who led the study.

The study was conducted about four years ago and the result has just been analysed and presented at an international seminar held recently in Hongkong.

The more than 2,000 textile industry employees examined, included workers in the spinning, weaving and blowing and carding sectors.

The rate of byssinosis was found to be much more prevalent — 5.6 percent — in the blowing and carding sector workers whose work involves closer contact with raw cotton fibres.

Typical symptoms of byssinosis include coughing and chest tightness at the start of a workday following a rest period such as a Monday. The symptoms gradually diminish during the day.

However, if exposure to cotton dust is prolonged, the symptoms will cling on

and become chronic.

The cause and many other aspects of byssinosis are still being studied but the current aim is to learn the size of the problem before taking action to tackle it, Dr Ong said.

One thing certain is that the disease is reversible during the early stages, he said.

Dr Ong says the Government should set up a committee to pool all resources for preventive measures and control of the disease.

Factory doctors could be stationed in cotton mills and factories to carry out medical surveillance based on observation of symptoms and follow-up, he said.

Education and publicity campaigns should also be launched among workers and employers as there is no general awareness of the

disease right now, Dr Ong added.

However, Mr Lam Siukay, an occupational hygienist in the Labour Department, says current measures used by the department to fight byssinosis are considered adequate and there is no plan yet for new measures to be adopted.

Although the level of cotton dust in some mills may go beyond the standard laid

down — which is 0.5 mg per cubic metre of air — the situation is found to be improving and the department sees no need to introduce new control measures, he said.

"Afterall, byssinosis is not a prominent occupational disease in Hongkong and the factories and Industrial Undertakings Ordinances provide enough coverage for the control of the disease," Mr Lam said.

/9312

CSO: 5450/0062

PAPER EXPLAINS, REPORTS ON RABIES DANGER

Interview with Official

Hong Kong HONGKONG STANDARD in English 2 Dec 86 p 5

[Article by Kathy Spillett]

[Text]

HONGKONG is safe from a major outbreak of rabies because of current regulations, quarantine restrictions and immunisation.

In an interview with *The Standard*, Dr Norman Cheng, Senior Veterinary Officer at the Department of Agriculture and Fisheries discussed the nature of the killer disease and blamed isolated outbreaks, like the attack on 75-year-old Ms Chan Ho at So Kwun Po Village early last month, on ignorance among residents.

Rabies is thought to be one of the oldest diseases in the world, largely contained in Eastern Europe until after the Second World War, when it began to spread.

It is a bullet-shaped virus, part of the rhabdovirae family, and is considered to be predominant in wild carnivores like dogs, foxes, wolves and mongooses. These are social creatures and, because they move and live in packs, they spread the disease.

Animals are infected through openings in the skin, for example a bite, but there is also a possibility that the disease can be transmitted by saliva dripping into an open wound.

Once inside the animal, the virus will travel along nerve fibres to the central nervous system.

During this stage there can be itchiness around the wound. It can take two to four months for the virus to reach the brain where it causes the most damage.

It will multiply in the brain and central nervous system and then travel out again down the nerve fibres to the saliva glands where it is secreted. This is when the animal becomes infectious and begins to show signs of 'mad' behaviour.

This madness is the result of damage to the nerve cells and the animal will eventually become paralysed and die.

Dr Norman Cheng, Senior Veterinary Officer at the Department of Agriculture and Fisheries said: "The only way you can protect people is to ensure that the animal population is fully immunised so that, when you get the odd case, you can control it."

"People in Hongkong are not very educated in this respect, they consider dogs should be let loose. We have tried to press upon them, through advertising,

the importance of exercising the animal themselves and not letting it roam around like a stray."

In spite of the animal inspection stations now at the border to mainland China, Dr Cheng said it was still possible for animals to cross into Hongkong via the filters used by workers from the mainland. This risk coupled with the ignorance of local residents who don't

get animals inoculated, is seen as the major cause of isolated incidents.

Following the attack on the woman in So Kwun Po Village, last month, 192 'stray' animals were collected and impounded. At the same time, 340 dogs were inoculated.

Among the 192 animals rounded up, 191 were stray dogs. Most of them were

claimed but 61 were eliminated.

Since 1980, seven people in Hongkong have died of rabies. Over 500 people have been prosecuted since the beginning of the year for not complying with anti-rabies regulations, 148 for not licensing their animals and 386 for allowing them to roam the streets like strays.

The department remains confident that there is little chance of a major rabies outbreak. The disease, it says, has been contained through the immunisation scheme.

Presumably, these odds would be improved if the people of Hongkong ensured that their animals comply with the territory's regulations.

Neglected Cases Enumerated

Hong Kong HONGKONG STANDARD in English 2 Dec 86 p 5

[Text]

HONGKONG has no special facilities for the treatment of rabies. Suspected cases are taken to accident and emergency wards and treated at the infectious disease units.

Since 1980 there have been seven cases of rabies in the territory and all have been fatal. The reason for this, according to the Medical and Health Department, is that few people take the trouble to report an attack by an animal or go to a doctor and have the wound treated.

A person bitten by a rabied dog has at most ten days to live once the symptoms of the disease begin to show.

The rabies virus enters the body via a wound and travels to the brain along nerve endings. Here it multiplies and causes an inflammation of the brain called Encephalitis rendering the person beyond medical help.

If the wound is treated early enough, however, there is a chance the patient will survive. Dr K L Lei, Medical and Health Officer with the M&HD told *The Standard* that immediate action can save lives.

"The most important thing is to wash the wound and go to a doctor immediately. The bite must also be reported to the Police. The doctor will treat the wound and if he thinks there is a chance of rabies he will give anti-rabies immunisation.

"The full course of immunisation entails

six injections over a period of three months. The first is given the day the bite is treated, the second three days later, then another after one week, then two weeks and one after one month and the last after three months.

"The vaccine helps the body build up its immunity and stimulates it to develop its own anti-bodies to help fight the disease."

Much of the problem in treating the disease is the early detection of rabies. It is only in the last stages of infection that obvious signs can be spotted and by this time it is too late to help the patient.

The Medical and Health Department conducts a series of education programmes to encourage people to follow the correct procedure when bitten by an animal.

It seems odd that in the light of this activity, with the accent so heavily on prevention rather than cure for obvious reasons, all the cases of the disease in humans since 1980 have resulted in death. This, according to Doctor Lei, is because the victims did not attend to the wound and seek medical help.

In spite of the fact that two of these cases were imported, we are still left with a 100 percent failure-rate in dealing with the disease. The message the Medical and Health Department is sending out to the people of Hongkong is clearly not getting across.

/9312
CSO: 5340/0061

HONG KONG

CANCER SAID NO 1 KILLER

Hong Kong SOUTH CHINA MORNING POST in English 13 Dec 86 p 1

[Text]

CANCER has been the number one killer in Hong-kong for more than 20 years, with the number of deaths trebling over the period.

The death toll increased from 2,916 in 1964 to last year's 7,535, with lung cancer remaining the leading cause of cancer deaths.

In the past 20 years, the death rate for men increased from 90.9 to 163.6 per 100,000 population while

that for women has risen from 75.4 to 112.5.

Medical and Health Services Director Dr K.L. Thong told the annual general meeting of the Hongkong Anti-cancer Society yesterday that the rise in the number of cancer deaths could not be attributed to the growth in population alone.

He said lung cancer was considered one of the worst killers.

/9312

CSO: 5450/0063

BRIEFS

SUSPECTED AIDS CASE--Bhopal, Dec 17--A Kenyan student in Jabalpur was suspected to be suffering from the Acquired Immune Deficiency Syndrome the Madhya Pradesh Assembly was informed today, reports PTI. The Health Minister, Mr Balendu Shukla, told the Assembly that blood samples of the student had been sent to Delhi for examination and the report indicated the possibility of his having contracted the disease. The State Government was taking steps to send the student back to his country, Mr Shukla said. [Text] [Calcutta THE STATESMAN in English 18 Dec 86 p 1] /7358

POLIO IN MADHYA PRADESH--Bhopal, December 7 (UNI)--Altogether, 6,621 cases of poliomyelitis were reported in Madhya Pradesh during the last four years. The cases were reported to the Central Bureau of health intelligence by various medical institutes in the state. Official sources said that a total of 2.1 million infants had been immunised against polyiomyelitis in Madhya Pradesh during the last five years. The universal immunisation programme started in 1985-86 proposes to immunise 85 per cent of the infants by 1990 against seven vaccine preventable diseases, including poliomyelitis. The sources also said that the Union government had already released Rs. 585.23 lakh as grants to the state government, this year for the implementation of Integrated Child Development Services (ICDS) schemes. A total of 130 projects under ICDS covering 34 of the total 45 districts in the state had already been sanctioned, the sources said. [Text] [Bombay THE TIMES OF INDIA in English 8 Dec 86 p 6] /7358

RHEUMATIC HEART DISEASE--Allahabad, Dec 7 (UNI)--Rheumatic heart disease, marked as a 'killer disease', has afflicted as many as six million children in India alone. Poverty, ignorance and inadequate health care facilities in India and other countries of the Third World are not only responsible for the prevalence of rheumatic fever but also its serious complications like the involvement of heart. Professor B L Agarwal and Dr Rajeev Agarwal of Allahabad while reporting on 100 consecutive cases of first attack of rheumatic fever in "World Health Organisation" bulletin have cautioned that damage to the heart is increased because of delay in hospitalisation. The prevalence of this killer disease in under developed or developing countries is not less than ten times of that in the West. According to the report, in the tropical regions of developing countries the disease is more severe as evidenced by the high prevalence of carditis, congestive heart failure and mortality. [Text] [New Delhi PATRIOT in English 8 Dec 86 p 2] /7358

MALARIA IN BENGAL--Siliguri, Dec. 5 (PTI)--Suspected malaria has so far claimed 11 lives and affected 500 more at Buraganj area under Kharibari police station in Siliguri during the last two months, according to the zonal officer, Jalpaiguri division, Dr A.K. Dutta. The worst affected villages were Singibhita, Baktbhita and Darabax of Buraganj I and II gram panchayats, Dr Dutta told newsmen here today. Claiming that the spread of the disease had been brought in check, he said survey teams had already been sent to the affected areas. [Text] [Calcutta THE TELEGRAPH in English 6 Dec 86 p 2] /7358

CSO: 5450/0068

INDONESIA

BRIEFS

MALARIA IN IRIAN JAYA--Jakarta, 18 Dec (AFP)--Malaria is still the top killer disease in Irian Jaya, where 146 people were on record to have died from it in the past year, ANTARA news agency reported Thursday. The agency quoted the provincial health service chief, Dr Susilo Sujoyosembodo, as saying the figure, compiled from seven hospitals, did not include three other hospitals which had not yet sent their latest reports. [Excerpt] [Hong Kong AFP in English 1607 GMT 18 Dec 86 BK] /7358

CSO: 5400/4318

EXPANDED MEDICAL FACILITIES NEEDED IN BATTLE AGAINST AIDS

Dublin IRISH INDEPENDENT in English 13 Dec 86 p 3

[Text]

FACILITIES to deal with sexually-transmitted diseases need to be greatly expanded, an expert warned last night as the AIDS virus claimed its eighth victim in the Republic.

Dr. Derek Freedman, Chairman of the Society of Sexually Transmitted Diseases, said that he expected that in a year from now there would be some 20 to 30 AIDS cases in Ireland.

Something had to be done to augment the existing STD clinics, better facilities were needed, more staff, and much work needed to be done to improve the infrastructure of the services, he urged.

The latest AIDS victim is Dubliner Derek Cummins, who died in the Mater Hospital yesterday after having four of his five year jail sentence remitted by the Minister for Justice, Alan Dukes.

Mr. Cummins, who was in his mid-twenties, was the first ex-prisoner to die as a result of contracting AIDS.

The dead man, who had been serving a five-year sentence for armed robbery, was transferred to the Mater Hospital after developing pneumonia.

There are 13 positive cases of AIDS in Ireland at the moment, and more than 500 people are known to have been exposed to the virus.

Dr. Freedman suggested that the best way of dealing with the pending

epidemic here was through the existing STD services and clinics but much needed to be done to improve and expand this overburdened service.

Outlining some deficiencies in the present system, Dr. Freedman pointed out that at the moment there was no full-time "contact tracer" in the country to interview AIDS sufferers about how they caught the infection.

And if someone was diagnosed as having a positive diagnosis there was no way the person could be tracked down if he or she decided not to turn up for treatment.

Dr. Freedman emphasised that there was no vaccine against AIDS. "Knowledge is the only vaccination. People have got to realise they can avoid the disease by being responsible in their sexual behaviour."

Dr. Freedman explained that the widespread publicity about AIDS had meant that the STD clinics had to deal with a flood of callers in recent times.

The number of cases of AIDS in the US roughly doubled each year but the rate here was slightly slower. He expected that there would be some 20 to 30 cases diagnosed here in a year's time. Some 80 p.c. of those who contracted AIDS died within two years, Dr. Freedman said.

The country's first full-time consultant in sexually transmitted diseases is due to take up duty in January at St. James's Hospital.

/9317

CSO: 5440/053

IRELAND

BRIEFS

SLAUGHTERHOUSE CLEANUP--The government is declaring war on meat processors who refuse to clean up their slaughter houses. A new Slaughterhouse Bill will be introduced in the Dail in the next session, signaling an official clampdown on unhygienic meat plants. Minister of State for Agriculture Paddy Hegarty said yesterday that, because of the disparity in standards and controls in local slaughterhouses, action was called for. He believed the new Bill would provide an assurance that meat being sold on the home market had been prepared under hygienic conditions and was fresh, wholesome and in every way fit for human consumption. [Excerpt] [Dublin IRISH INDEPENDENT in English 17 Dec 86 p 3] /9317

CSO: 5440/053

HEALTH OFFICIAL CLAIMS NO AIDS CASES IN COUNTRY

Amman THE JERUSALEM STAR in English 8 Jan 87 p 4

[Article by Venita Maudsley]

[Text]

DR SULEIMAN Qubain, the Director of Primary Health Care (PHC) in Jordan, stated categorically that no cases of AIDS have ever been found in Jordan. The PHC is responsible for the notification of all communicable diseases, the collection of data and the planning of any action needed in combating disease. In response to the worldwide AIDS scare, a committee has been set up to provide guidelines on how to respond to the disease. This committee is headed by Dr Hani Shmoud of PHC and includes representatives of the Ministry of Health, the Royal Jordanian Medical Services, Jordan University and the Jordanian Medical Association. They have stated that imported human immunoglobulins and plasma for haemophilia factors should be free of AIDS antibodies.

The presence of AIDS antibodies does not necessarily mean that the AIDS virus is present, but it does indicate that the blood donor was exposed to the virus at some time. Dr Qubain said that

there were some samples of imported immunoglobulins which were found to be positive for the AIDS antibodies, using the "Elisa technique." These samples were sent to Namro in Cairo (a laboratory with very sophisticated equipment) and to the World Health Organization for further testing. Both reported that the samples were virus free, the original results showed a "false positive." Heat treatment of the immunoglobulins kills the live virus.

The AIDS committee also deals with the action that would need to be taken should the virus ever reach Jordan. As AIDS is a blood disease, blood transfusions are obviously a source of infection. The blood banks in Jordan all have their blood supplies tested to ensure that it is free of AIDS antibodies. Blood is provided by voluntary donations as well as by relatives of a patient in need.

The PHC has also issued a warning pamphlet, to be distributed at the departure points at the airport, informing travellers on how to avoid the disease when they leave Jordan.

/9274

CSO: 5400/4508

MASS RUBELLA IMMUNIZATION IN 1987

Penang THE STAR in English 24 Dec 86 p 4

[Text]

KUALA LUMPUR, Tues. — The Health Ministry will carry out a pilot immunisation programme against rubella (German measles) from May for all females between the ages of 15 and 44.

The programme will begin in Negri Sembilan. Once completed, it will be extended to the rest of the country based on information and lessons learnt in Negri Sembilan.

Director of Health Services Datuk Dr Abdullah Abdul Rahman said the

Ministry hoped to complete the whole exercise before the end of 1988.

Next year, the Ministry, with the co-operation of private practitioners, hopes to immunise 810,000 schoolgirls and women, and 1988 three million women.

One dose of the vaccine will give immunisation for life against rubella.

The estimated cost for the programme is \$1.2 million for next year and another \$4 million in 1988.

Dr Abdullah said the Ministry decided to go ahead

with the immunisation exercise despite the financial situation so as to check the incidence of abnormal births.

Babies born with Rubella Syndrome may have eye defects like cataract and glaucoma, mental retardation, hole-in-the-heart or other conditions involving the liver, spleen and bone.

Dr Abdullah said the decision to introduce mass immunisation was made following a pilot study on a programme carried out between July last year and

January.

The study covered Terengganu, Penang, Selangor and Johore.

He said the programme in Negri Sembilan would be carried out in five stages:

● FIRST — schoolgirls in Forms Three to Five;

● SECOND — first and final-year college students;

● THIRD — all medical and health staff;

● FOURTH — post-natal mothers;

● FIFTH — housewives, women factory workers and office workers.

It is expected to be completed by the end of next year.

Dr Abdullah said the Ministry did not anticipate any problem in administering the jabs on the first four groups. "We foresee difficulties at the last stage."

He said the injections would be available at all government health centres, hospitals and clinics.

Private doctors who wish to give their patients the injections could buy the vaccine from the Ministry, he added.

/7358

CSO: 5400/4322

NIGERIA

HEALTH MINISTER REPORTS 477 YELLOW FEVER DEATHS

AB101255 Paris AFP in English 1159 GMT 10 Jan 87

[Text] Lagos, Jan 10 (AFP)--A total of 477 people have died in the yellow fever epidemic which broke out in south-eastern Nigeria last November, Health Minister Olikoye Ransome-Kuti has said here.

The minister, speaking to reporters on Friday, also said there were no confirmed cases of acquired immune deficiency syndrome (AIDS) in the country.

The new figure for the yellow fever outbreak compared with an original government count of below 200. The United Nations World Health Organization (WHO) had estimated the death toll at 500. The epidemic, the worst in Nigeria in 17 years, affected the states of Benue and Cross River.

Mr Kuti expressed surprise at reported new cases of disease in the Oju district of Benue state over Christmas, saying that the area had been supplied with sufficient doses of vaccine to contain the scourge.

However he said "elite" Nigerians had "diverted" some of the vaccines supplied for their own use, leaving other people who were more exposed to the disease at risk. He said more than four million doses of vaccine had been sent to the affected areas.

Mr Kuti promised more state action, including a mass vaccination drive.

On the AIDS threat, the minister said: "You cannot be absolutely sure, but all the tests on children and adults, including prostitutes, have revealed no AIDS anti-bodies."

Mr Kuti added that his ministry planned a national education campaign on the AIDS, for which no cure is known at present. The disease, which is frequently transmitted sexually, breaks down the body's natural resistance to disease.

Nigeria set up an expert advisory committee on AIDS last year, including WHO consultant Germano Munube of Uganda.

/7358

CSO: 5400/84

NIGERIA

BRIEFS

NEW CASES OF YELLOW FEVER REPORTED--Fresh cases of yellow fever have been reported in Uju local government area of Benue State. The government is already taking measures to control the situation. The commissioner for health, Dr Stephen (Ikoria), stated this in Makurdi yesterday while declaring open a 2-day workshop for vaccinators. He charged them to adhere strictly to instructions received during the course in the discharge of their duties. The workshop is part of programs to prepare vaccinators for mass immunization against the yellow fever epidemic. [Text]
[Lagos Domestic Service in English 1500 GMT 30 Dec 86] /9604

CSO: 5400/80

PAKISTAN

BRIEFS

MINISTER ON AIDS--Islamabad, 8 Jan--Pakistan was totally free of AIDS (Acquired Immune Deficiency Syndrome), the National Assembly was informed here today. The Minister of State for Health, Mr Ghulam Mohammad Khan Mahar, while responding to an adjournment motion tabled by Sheikh Rashid Ahmed, who quoting a press report said AIDS cases had been reported in Pakistan also, denied presence of any such case in the country. [Text] [Lahore THE PAKISTAN TIMES in English 9 Jan 87 p 12] /9274

CSO: 5400/4705

STUDIES ON MOTHER-INFANT TRANSMISSION OF HEPATITIS-B

Beijing ZHONGGUO YIXUE LUNTAN BAO [CHINA MEDICAL TRIBUNE] in Chinese Vol 7
No 5, 15 Aug 86 p 2

[Article by Luo Shixin [5012 1102 0207]]

[Text] The mother-infant transmission is an important mode by which hepatitis-B spreads in the high incidence areas. Therefore, an important part in the early prevention and reduction of hepatitis-B incidences is to take on the task of blocking off the passages from mother to infant in these areas. Several Sichuan medical units have used the Chinese-made hepatitis-B vaccines and hepatitis-B immunoglobulins (HBIG) in their attempts to block off the mother-infant transmission in the Sichuan area.

The subjects of their studies are the newborns given birth by those pregnant women who are hepatitis-B surface antigen (HBsAg) and e antigen (HBeAg) double positive or HBsAg positive with a potency of $>1:512$. They were randomly divided into the vaccination group and the vaccination plus HBIG group. The babies in the vaccination group were given intramuscular injections of the vaccine at 48 hours, 1 month, 2 months, and 6 months after birth. The babies in the vaccination-HBIG group were given intramuscular injections of the vaccine and HBIG simultaneously at different parts of the body at the same intervals as the former group. The control group was given intramuscular injections of placebos. Blood samples were taken for HBsAg, anti-HBs, and anti-HBe tests at the 1st, 3d, 6th, 9th, and 12th month. Among the 104 babies vaccinated, 80 cases were available for follow-up observations for longer than a year, in which 27 cases belong to the vaccination group, 27 the vaccination-HBIG group, and 26 the control group. The protection rates of the first two groups are both 88 percent. The fact that there is no significant difference between the two demonstrates that the Chinese-made hepatitis-B vaccines and HBIG are very effective in blocking off the mother-infant transmission of hepatitis-B. The approach of using vaccine alone is also satisfactory.

12922/9365
CSO: 5400/4102

STUDY ON CHROMOSOME FRAGILITY IN PATIENTS WITH VIRAL DISEASES

Beijing YICHUAN XUEBAO [ACTA GENETICA SINICA] in Chinese Vol 13 No 3, Jun 86
pp 232-237

[Article by Xiao Bai [5135 4101],* Zhou Xianting [0719 2009 1656], and Wang Anqi [3076 1344 3823], Beijing Institute of Genetics, Chinese Academy of Sciences, and Xu Lianzhi [1776 5571 5347], and Zhou Jinlan [0719 6855 5695], Beijing No 2 Hospital for Infectious Diseases; paper received 5 March 1985]

[Text] Abstract: The chromosome fragility in patients with several viral diseases was studied in this paper. Preliminary studies on the characterizations of the fragility and the possibility of its being used as a more sensitive marker for the assay of biological mutagens were made. The results showed that there was a marked increase in the frequency of spontaneous chromosome aberrations in the cells grown in the MEM-FA medium over those in the MEM medium. The chromosome aberration frequencies of the hepatitis patients were markedly different in these two media. But there was no significant difference between the control and the mumps, chicken pox, and measles groups. The chromosome aberration in lymphocytes occurred predominantly at location 3p14 when the cells were grown in the MEM-FA. There were also seasonal variations in the chromosome aberration frequency and the frequency of break at location 3p14.

The chromosome fragility refers to the structural aberrations of chromosome in the peripheral lymphocytes when they are grown in a medium devoid of folic acid and thymidine (MEM-FA). Folic acid is metabolized and converted into N^5, N^{10} -methylene-tetrahydrofolate, which is the methyl donor in the synthesis of deoxythymidine monophosphate (dTMP) by methylation of deoxyuridine monophosphate (dUMP). Thymidine also can be converted into dTMP, which is a necessary precursor in the synthesis of DNA. Deficiencies in folate and thymidine will directly disturb the DNA synthesis and chromosome replication. Zhou, et al.,¹⁰ discovered that the human chromosome fragility was induced in a medium deficient in folate. There was a higher frequency of spontaneous aberration when cells were grown in MEM-FA than in MEM. Jacky, et al.,⁸ studied the micronucleus formations of normal human lymphocytes in different media and found a rate of 4.4 percent when cells were grown in MEM-FA while it

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was only 0.4 percent for the control when grown in MEM. Zhou, et al.,¹ compared the chromosome aberration frequency of smoker's and nonsmoker's cells in MEM-FA and found a marked difference between the two. When the peripheral blood was irradiated with X-ray outside the body, the cells displayed a significantly higher chromosome aberration frequency in MEM-FA than in MEM. All these results seem to suggest that cells are more sensitive to environmental agents when there are defects in the DNA synthesis process. The chromosome fragility is probably a more sensitive marker than chromosome aberration frequency. Virus is a biological agent that can cause damage to chromosomes. No study on the chromosome fragility of patients with viral diseases has so far been published. In this study, we used the MEM-FA to observe the virus-induced chromosome aberrations and to make a preliminary examination into the possibility of using chromosome fragility as a more sensitive marker for the assay of biological mutagens.

Materials and Methods

1. Materials

The normal controls were peasants or their children, machine factory and construction workers, and healthy blood donors. They had never been exposed to toxic chemicals or radiations and had no noticeable viral infections. There were 59 subjects, 33 males and 26 females. Their age ranged from 12-62 years old.

Hepatitis patients were from the outpatient clinic. Among the 20 subjects, 11 males and 9 females, 11 have hepatitis-B and 9 nonhepatitis-B. The duration they had the diseases ranged from 1 month to 21 years. Diagnosis was based on the standard clinical and laboratory procedures set forth at the National Viral Hepatitis Conference (Hangzhou, 1978).

Other patients with viral diseases include 14 cases of measles, 5 cases of chickenpox, and 13 cases of mumps. Their age ranged from 7 months to 28 years and they had the diseases from 3 to 14 days. Diagnosis was based on the epidemiological histories and typical clinical and body symptoms.

2. Methods

Lymphocytes were cultured in two kinds of media, MEM-FA and MEM. They were added to a mixture of MEM-FA or MEM (9 ml, pH7.5), calf serum (0.5 ml), PHA (0.2 ml), penicillin or streptomycin (0.1 ml, 10,000 units/ml), and heparin-treated venous blood (0.6 ml) and incubated at 37°C for 96 hours. Colchicine (0.08 µg/ml) was added an hour before the end of the incubation period. The cell slices were prepared through slow osmosis, fixation, and normal air-drying.

After routine Giemsa staining, they were observed under a microscope. When necessary, the samples were decolorized with anhydrous ethanol, treated with trypsin and the resulting G bands observed.

3. Observation Procedures

For each subject, between 50-100 metaphase cells from each treatment were observed. All the chromosome structure aberrations, including spacings, breaks, broken or circular pieces, single chromatid exchanges, and chromosomes with double spindle-fiber attachments were recorded. It was judged abnormal when the spacing was equal or greater than the width of a chromatid. Circular chromosomes, single chromatid exchanges and chromosomes with double spindle-fiber attachments were regarded as the results of double breaks.

Results

I. Chromosome Aberration Frequency

1. The Control Group

The chromosomes of normal human cells grown in MEM-FA and MEM showed a remarkable difference in aberration frequency. The spontaneous chromosome aberration frequency in MEM-FA was significantly higher (Table 1).

Table 1. Results of Experimental and Control Groups

样本种类 Subjects		例数 No. of cases studied	每 100 细胞中染色体断裂数 Breaks/100 cells	
			MEM-FA	MEM
正常对照 Controls		59	4.65 ¹⁾	2.17
肝炎 Hepatitis		17	8.84 ²⁾³⁾	2.76
流行性腮腺炎 Mumps		13 V-12 除外 Excluding V-12	2.83	1.72
水痘 Chicken pox		5 V-31 除外 Excluding V-31	1.50	1.33
麻疹 Measles	培养 96 小时 Cultured for 96 hrs.	11	2.45	2.91
	培养 72 小时 Cultured for 72 hrs.	3	15.00	7.67

1) 与 MEM 中生长的细胞比较。Compared with cells cultured in MEM $t = 5.297, P < 0.001$

2) 与 MEM 中生长的细胞比较。Compared with cells cultured in MEM $t = 3.804, P < 0.01$

3) 与正常对照比较。Compared with controls $t = 2.84, P < 0.01$

2. The Viral Diseases Group

a. Hepatitis: There were 17 cases that produced positive results in both media. In MEM-FA, the average aberration frequency of hepatitis chromosome is 8.84/100 cells, which is markedly different from that of the control ($t = 2.84, P < 0.01$). The aberration frequency of the same samples is 2.76/100 cells in MEM, which is not very different from that of the control. The aberration frequencies of hepatitis patients in the two media are quite different, the frequency in the deficient medium being significantly higher.

b. Mumps: In the 13 cases of mumps, subject V-12 was a carrier of a fragile breakpoint at 16q22 and was excluded. The aberration frequencies of the remaining 12 cases in the two media are 2.83/100 cells (MEM-FA) and 1.72/100 cells (MEM), respectively.

c. Chicken pox: For the chicken pox patients, their chromosome break frequencies are only 0-4/100 cells with the exception of the subject V-31, who also suffered from renal syndromes and whose aberration frequencies are as high as 23/100 cells (MEM-FA) and 9/100 cells (MEM). This may be caused by an abnormal immune system.

d. Measles: With an incubation time of 96 hours, the chromosome aberration frequencies of measles patients are 0-8/100 cells in MEM-FA and 0-5/100 cells in MEM. The incubation time for the last 3 cases was switched to 72 hours. The results show that their aberration frequencies in both media, 10, 20, and 15/100 cells (MEM-FA) and 6.15 and 2/100 cells (MEM), respectively, are significantly higher.

2. Characteristics of Chromosome Fragility

Cells grown in MEM-FA show a chromosome breakpoint distribution that is different from those in MEM. The most distinctive feature is that these chromosome aberrations were not random events but often occurred at the hot points 3p14 (Table 2 and Figure 1). This is particularly noticeable among hepatitis patients, whose frequency of break at the hot point 3p14 (3.31/100 cells) is significantly higher than that of the control (1.01/100 cells). Of all the structural aberrations, the most often encountered are the aberrations of chromatid. The chromosome aberration frequencies among the subjects fluctuate over a wide range, being 0-21/100 cells for the hepatitis patients and 0-20/100 cells for the normal controls.

Table 2. Frequency of Break at 3p14 in MEM-FA

样本种类 Subjects	观察总例数 No. of cases studied	3p14 部位断裂频率 \geq 3/100 细胞的例数 (%) No. of cases with 3p14 breaks \geq 3/100 cells (%)	每 100 细胞中 3p14 部 位断裂数 3p14 breaks per 100 cells
肝炎病人 Patients with hepatitis	20	9(45)	3.31
正常对照 Controls	59	6(10.2)	1.01

$t = 3.336, P < 0.01.$



Figure 1. Human Chromosome Hot Point at 3p14

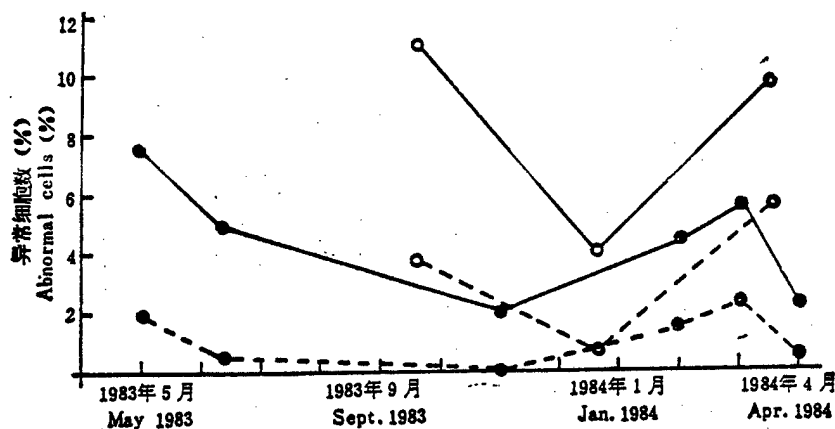


Figure 2. Variations of Chromosome Aberration Frequencies in Hepatitis Patients and Controls at Different Months of the Year

● Controls — Total breaks per 100 cells
○ Patients ---- 3p14 breaks per 100 cells

Our experimental results reveal a seasonal variation of chromosome fragility. The chromosome aberrations of the normal controls and hepatitis patients at different months are shown in Figure 2. The general trend is that the frequency of break is higher in spring and autumn and lower in summer and winter. There are significant seasonal variations ($t = 2.431$, $P < 0.05$ for hepatitis patients; $t = 2.338$, $p < 0.05$ for the controls). Similar variation is also found in the frequency of break at position 3p14.

Discussions

1. The Possibility of Using Chromosome Fragility as a Marker

The chromosome structure aberration has been one of the markers for the assay of mutagenicity in the study of environmental agents. A large volume of research has been done on the connection between virus and chromosome abnormality. The chromosome structure aberrations induced by hepatitis virus are easily detected both in the bone-marrow cells and the peripheral lymphocytes.² Although there are reports of an elevated frequency of break of the lymphocyte chromosomes in patients with measles, mumps, and chicken pox,^{5,6} there are also reports with the contrary observations.⁷ How reliable is the chromosome fragility as an assay marker then? Our results show that, when the peripheral lymphocytes of the hepatitis patients were grown separately in MEM-FA and MEM, there was an obvious difference in their chromosome aberration frequencies, suggesting that the deficient medium increases the chromosome abnormalities induced by hepatitis virus and the chromosome fragility as a marker is more sensitive. But it also has to be pointed out that our results give lower aberration frequencies when compared with the results of other researchers. A possible explanation is that, with an incubation time as long as 96 hours, the cells passed through several cycles and many abnormal cells

died and hence the aberration frequency was lowered. The results of the measles patients tend to support this argument. When incubated for 72 and 96 hours, the former gave a higher frequency of break.

2. High Frequency of Break at Hot Point 3p14

It can be seen from the results of this study that 45 percent of the hepatitis patients and 10.2 percent of the controls show a frequency of break $> 3/100$ cells at 3p14 site. The average frequency of break at 3p14 among the hepatitis patients is significantly higher than that of the controls. This may be related to the folate metabolism. It has been reported^{3,9} that folic acids are stored in liver in the form of a polyglutamic acid derivative of reduced pteridine, which has to be converted into tetrahydrofolate before it can take part in DNA synthesis. The conversion takes place mainly in liver. Folic acids in serum are usually bound to folate binding proteins. It is found that the concentration of free folate binding proteins in the serum of hepatitis patients is higher than normal while the serum folate level is lower. The two are inversely correlated.⁴ These suggest that the normal folate metabolism is affected when liver cell necrosis occurs in a large number. The reason for the increase in chromosome aberration frequency is the inhibition of DNA synthesis due to folate deficiency, and the effect is enhanced particularly in the folate-deficient medium. As a result, the specific site of 3p14, which is sensitive to folate, breaks with very high frequency.

3. Seasonal Variations of Chromosome Fragility

The chromosome fragility varies with season and so does the frequency of break at 3p14 site. They are higher in spring and fall and lower in summer and winter. For the hepatitis patients, the variation may reflect the seasonal changes of viral activity. Damages to chromosomes are severe when the viruses are activated and actively reproducing and less so when their ability to reproduce is low. As to the heightened chromosome breakages in the controls during spring and fall, the most likely explanation is that, thanks to the human immune system, a majority of viral infections do not cause diseases but merely result in blood infections without clinical symptoms. The chromosome aberration frequency increased because of the presence of these blood infections at the time the subject's blood samples were taken even though they appeared healthy. And hence resulted in the seasonal variations. Based on the above information and analysis, it is imperative that control experiments be carried out at the same time a genetic toxicological test is done. This is very important to ensure the accuracy of the test.

REFERENCES

1. Zhou Xianting, et al., 1984, YICHUAN XUEBAO [ACTA GENETICA SINICA], 11: 318-324.
2. Ji Xuewen [6060 7185 2429], 1984, GUOWAI YIXUE YICHUANXUE FENCE [FOREIGN SERIES OF MEDICAL GENETICS], 7: 78-80.

3. Ye Weifa [0673 4850 3127], 1983, GANDAN JIBING ZHILIAOXUE [THERAPEUTICS OF LIVER AND GALL BLADDER DISEASES], Gansu People's Press, p 103.
4. Areekul, S., et al., 1979, J. MED. ASSOC. THAI., 62: 1-5.
5. Aula, P., 1965, ANNLS. ACAD. SCI. FEN., 89: 1-78.
6. Aula, P., 1963, HEREDITAS, 49: 451-453.
7. Harnden, D.G., 1964, AM. J. HUM. GENET., 16: 204-213.
8. Jacky, P.B., et al., 1983, SCIENCE, 220: 69-70.
9. Sherlock, S., 1975, DISEASES OF THE LIVER AND BILIARY SYSTEM, 5th ed., Oxford, Blackwell, p 56.
10. Zhou, X.T., et al., 1982, AM. J. HUM. GENET., 34: 153A.

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DISTRIBUTION OF HERPES SIMPLEX AND CYTOMEGALOVIRUS ANTIBODY IN DIFFERENT AGE GROUPS IN GUANGZHOU

Beijing ZHONGHUA LIUXINGBIN XUE ZAZHI [CHINESE JOURNAL OF EPIDEMIOLOGY]
in Chinese Vol 7 No 5, 10 Oct 86 pp [257]-260

[English abstract of article by Chang Ruxu [1603 3067 5711], et al., of
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[Text] Two hundred eighty serum samples from different age groups in Guangzhou were examined for the presence of a complement-fixing (CF) antibody to herpes simplex virus type 1 (HSV1), herpes simplex virus type 2 (HSV2) and cytomegalovirus (CMV). It was revealed that 70.6 percent and 61.8 percent of infants less than 6 months old possessed the HSV1 and HSV2 antibodies respectively. The percentage of the detectable antibody had decreased by the age of 6-12 months, but subsequently increased by the age of 1-6 years. Of children aged 7-8 years, 71.0 percent and 58.1 percent were found to have HSV1 and HSV2 CF antibodies respectively. As for adults, 93.3 percent possessed the HSV1 CF antibody, while 86.7 percent possessed the HSV2 antibody. Examination for CMV revealed that 73.5 percent of infants less than 6 months old possessed the CMV CF antibody. The percentage of detectable serum antibody did not decrease by the age of 7-12 months, approaching 83.9 percent instead. After that, the prevalence of detectable CMV antibody ranged from 41.9 to 58.1 percent by the age of 1-6 years, 83.9 percent by 7-8 years, and 86.7 percent in adults. The geometric mean titers of HSV1, HSV2 and CMV CF antibodies correlated with the rate of antibody positivity.

Results obtained indicate the prevalent infection of HSV1, HSV2 and CMV in the investigated area, and the high prevalence of the CMV antibody by the age of 7-12 months suggests most CMV infection might be transmitted from mother to infant during early life.

REFERENCES

1. Smith IW, et al. The incidence of herpes virus hominis antibody in the population. J Hyg 1967; 65:395.
2. Krech U. Complement fixing antibodies against cytomegalovirus in different parts of the world. Bull WHO 1973;49:103.
3. Nahmias A, et al. Infection with herpes simplex virus 1 and 2. New Engl J Med 1973;289:667.
4. Krech U, Tobin J. A collaborative study of cytomegalovirus antibodies in mothers and young children in 19 countries. Bull WHO 1981; 59: 605.
5. 汪慧民等. 武汉地区不同年龄组巨细胞病毒抗体的研究. 防治与研究 1983;2:1.
6. Stern H, et al. The incidence of infection with cytomegalovirus in a normal population. J Hyg 1965;63:79.
7. Hanshaw JB. Cytomegalovirus infection. In: Wehrle PF, Top FH, eds. Communicable and infectious diseases. ed. 9. Missouri, Mosby, 1981: 187-196.
8. Spiteri LJ, et al. Antibody to cytomegalovirus in Malta. J Hyg 1982;85:355.

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ULTRASTRUCTURE OF VIBRIO MIMICUS

Beijing ZHONGHUA WEISHENGWUXUE HE MIANYIXUE ZAZHI [CHINESE JOURNAL OF MICROBIOLOGY AND IMMUNOLOGY] in Chinese Vol 6 No 5, Sep 86 pp 274-275

[English abstract of article by Xie Nianming [6200 1819 6900], et al., of the National Institute for the Control of Pharmaceutical and Biological Products, Beijing; Lu Baolian [4151 1405 1670] of the Institute of Zoology, Chinese Academy of Sciences, Beijing]

[Text] Vibrio mimicus is comma-shaped and has a single polar flagellum. The cell envelope contains an outer membrane, mono-layered peptidoglycan and inner (cytoplasmic) membrane. Therefore, it is characterized as a Gram-negative bacterium. The flagellum consists of a unit membrane with a few fibrilla in its center. The basic body of the flagellum passes through the cell wall into the cell membrane. In the cell plasma, there are nucleoids, ribosomes, mesosomes and inclusions of poly- β -hydroxybutyrate. It seems that V. mimicus is similar to V. cholera in ultrastructure.

REFERENCES

- [1] Davis BR: J Clin Microbiol 14 (6) :631 1981
- [2] Spira WM: Appl Environ Microbiol 46 : 704 1983
- [3] Spira WM: Infect Immun 45:679 1984
- [4] 杨正时等: 医学研究通讯 14 (10) :314 1985
- [5] Moat AC: Microbiol Physiol p.p.95-100, John Wiley & Sons, New York, 1979

REVERSED PASSIVE HEMAGGLUTINATION ASSAY FOR CHOLERA ENTEROTOXIN

Beijing ZHONGHUA WEISHENGWUXUE HE MIANYIXUE ZAZHI [CHINESE JOURNAL OF MICROBIOLOGY AND IMMUNOLOGY] in Chinese Vol 6 No 5, Sep 86 pp 290-292

[English abstract of article by Xu Wenxiang [6079 2429 7449], et al., of the National Institute for the Control of Pharmaceutical and Biological Products, Beijing]

[Text] A sensitive and specific reversed passive hemagglutination (RPHA) assay for cholera enterotoxin has been developed. A rabbit anti-cholera antigen antibody was coupled with sheep erythrocytes, using the Cr-antitoxin-tannic acid method, and the antitoxin sensitized erythrocytes were shown to be agglutinated specifically in the presence of cholera enterotoxin.

The micro-RPHA assay system is more sensitive than the skin test in rabbits, and the freeze-dried erythrocytes sensitized by antitoxin have been proven to be stable and convenient for use.

REFERENCES

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| (1) De S N: J Path Bact 46: 559, 1953. | (6) 王林发等: 生物制品通讯 8(4): 174 1979. |
| (2) Craig J P: Nature 207: 614, 1965. | (7) Boyden V S: J Exp Med 93: 107, 1951. |
| (3) Donta S T: Brit J Haemat 3: 19, 1957. | (8) Stavitsky A B et al: J Immunol 74: 305, 1955. |
| (4) Ketyi et al: Acta Microbiol Acad Sci Hungr 27
(1): 89, 1980. | (9) Jandle J H et al: Brit J Haemat 3: 19, 1957. |
| (5) Remmers E F et al: Infect Immun 37: 70, 1982. | (10) Randall K Holmes et al: Infect Immun 19: 101, 1978. |

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CSO: 5400/4109

ABNORMAL HEMOGLOBIN STUDIED

Beijing ZHONGHUA YIXUE ZAZHI [NATIONAL MEDICAL JOURNAL OF CHINA] in Chinese
Vol 66 No 8, 15 Aug 86 pp 462-464, 510

[Article by Hematology Institute, Chinese Academy of Medical Sciences, and an 18 province (region, city) Cooperative Hemoglobin Disorder Research Group: "Epidemiological Analysis of Abnormal Hemoglobins in China"; paper received 16 February 1984, finalized 20 February 1986; first two paragraphs are source-supplied English abstract]

[Text] Abstract: Abnormal hemoglobins were surveyed in 28 provinces (autonomous regions and cities) of China. Among 770,221 cases examined, 2,575 cases of abnormal hemoglobin were found with the adjusted incidence of 0.222 percent. Yunnan Province has the highest incidence. Abnormal hemoglobins were found in 32 nationalities. Some of the minorities, such as Dai, have high incidence. The high incidence of Yunnan might be related to the high incidence of some minorities in Yunnan.

In China, 83.86 percent of abnormal hemoglobins were slow moving. HbE, HbG Coushatta, HbG Taipei, and HbJ Bangkok could be found in north and south China. HbD Punjab was reported in north China. It was shown that abnormal hemoglobins were widely and unevenly distributed in China and that a higher incidence and more variants were found in south China. Of the abnormal hemoglobins in China, 83.86 percent were slow-moving electrophoretically.

Studies of hemoglobin disorders have attracted worldwide attention.^{1,2} The world map of hemoglobin distributions published by the WHO in 1983 did not include information about China. Using hemoglobin electrophoresis, our institutes have collaborated with 18 provinces, cities, and autonomous regions in a survey of 207,546 people for abnormal hemoglobin.³ Together with previously published domestic information,^{4,5} we have collected information from 28 provinces, cities, and autonomous regions through 1983. We have analyzed the epidemiology of abnormal hemoglobins in China based upon this information.

1. The Incidence of Abnormal Hemoglobins in 28 Provinces, Cities, and Autonomous Regions

The survey of abnormal hemoglobins on the Chinese mainland began in 1964. Until the present, 770,221 people (70 per 100,000 residents) have been surveyed. See Table 1 for survey results.

Table 1. Incidence of Abnormal Hemoglobins in 28 Provinces, Cities, and Autonomous Regions

Survey areas	Number of cases	Positive cases	Incidence (percent)
Yunnan	8,534	517	1.48**
Fujian	10,653	44	0.41
Xinjiang*	154,781	634	0.41
Guangxi*	70,344	280	0.40
Guangdong*	163,221	474	0.29
Jiangxi*	32,359	89	0.28
Anhui	19,124	43	0.23
Gansu	9,687	21	0.22
Sichuan	16,041	30	0.21
Beijing*	13,994	29	0.21
Guizhou	22,373	45	0.20
Shanxi***	11,549	23	0.20
Hunan*	10,026	19	0.19
Zhejiang	39,623	76	0.19
Hebei**	6,230	10	0.16
Nei Monggol*	27,557	43	0.16
Ningxia***	4,522	7	0.16
Hubei*	22,953	35	0.15
Tianjin	2,016	3	0.15
Qinghai***	2,765	4	0.15
Liaoning	14,571	20	0.14
Heilongjiang*	26,791	35	0.13
Shanghai*	10,233	13	0.13
Shaanxi**	7,070	8	0.11
Jilin***	10,902	12	0.11
Henan	25,558	28	0.11
Jiangsu***	8,693	8	0.09
Shandong***	4,947	2	0.04

* Survey information provided by National Hemoglobin Disorder Research Group.

** Calculations based upon adjusted nationalities.

***Survey information provided by Research Group from 18 provinces, (regions and cities).

Unmarked areas are from combined information from both groups.

A total of 2,575 cases of abnormal hemoglobin was found in the 28 provinces, cities, and autonomous regions, an adjusted incidence of 0.222 percent. Based upon this calculation, there are approximately 2.29 million abnormal hemoglobin carriers in China. The incidence in 14 provinces, cities, and autonomous regions in or north of the Changjiang basin, except Xinjiang, Gansu, Beijing, and Shanxi, was higher than 0.19 percent. The incidence in 14 provinces, cities, and autonomous regions north of the Changjiang, except Hubei, Shanghai, and Jiangsu, was lower than 0.16 percent. Therefore, the incidence in the south was higher.

2. The Incidence Among 35 Nationalities

A total of 552,071 people from 35 nationalities were surveyed. Abnormal hemoglobins were found in 32 nationalities (Table 2). Abnormal hemoglobins are widely distributed among the different nationalities, and the incidence among six nationalities was higher than 8.21 percent. Five of these six nationalities are from Yunnan. Higher incidences in the north occur in nationalities such as the Tajik and Kirgiz residing in Xinjiang. There are certain relationships between the high incidences in certain minority groups and the high incidences in Yunnan and Xinjiang.

Table 2. Incidence of Abnormal Hemoglobins in 35 Nationalities

Nationality	Number of cases	Positive cases	Incidence (percent)
Achang	212	91	42.93
Jingpo	40	5	12.50
Tai	1,447	167	11.54
Baoan	508	5	9.84
Deang	192	16	8.33
Lisu	195	16	8.21
Yi	865	17	1.17
Tajik	1,807	22	1.22
Kirgiz	3,649	42	1.15
Zhuang	17,254	153	0.89
Jing	3,114	27	0.87
Hasake	15,847	95	0.60
Uygur	51,444	288	0.56
Dongxiang	204	1	0.49
Bai	1,044	5	0.48
Maonan	2,009	8	0.40
Buyi	2,298	8	0.35
Yao	2,303	7	0.30
Han	365,962	976	0.27
Miao	5,102	12	0.24
Hui	17,996	33	0.18
Hani	1,098	2	0.18
Tujia	642	1	0.16
Qiang	759	1	0.13
Tong	4,382	5	0.11
She	3,004	3	0.10
Chaoxian	14,034	14	0.10
Monggol	13,766	13	0.09
Li	7,624	4	0.05
Zang	2,260	1	0.04
Xibo	4,337	1	0.02
Shui	5,863	1	0.02
Tu	135	0	--
Yugu	105	0	--
Sala	40	0	--
Others	530	0	--
Total	552,071	2,040	

3. Abnormal Hemoglobin Variants in China

Based upon electrophoretic mobility at pH 8.5, the distribution of abnormal hemoglobin variants from 1,227 cases is shown in Table 3.

Table 3. Abnormal Hemoglobin Variants From North and South of the Changjiang

Areas	South	North	Total
Group H--Case	5	0	5
Percent	0.49	--	0.41
Group J--Case	165	25	190
Percent	16.26	11.79	15.48
Group A--Case	3	0	3
Percent	0.30	--	0.25
Group G--Case	199	170	369
Percent	19.61	80.19	30.07
Group E--Case	641	17	658
Percent	63.14	8.02	53.63
Others --Case	2	0	2
Percent	0.20	--	0.16
Total --Case	1,015	212	1,227
Percent	100	100	100

Based upon geographic distribution, 78.61 percent of 1,105 cases from south of the Changjiang belong to the slow-mobility group, and the majority of those are group E. North of the Changjiang, 88.21 percent of 212 cases belong to the slow-mobility group, and the majority of those are group G. The fast-mobility group are 16.75 percent south of the Changjiang and 11.79 percent north of the Changjiang. There is a disparity in the variant distribution north and south of the Changjiang. In particular, the incidence in Yunnan is high, and the majority is group E. When Yunnan is excluded from the provinces, cities, and autonomous regions south of the Changjiang, the incidence of group G > group J > group E south of the Changjiang. Each group comprises about one-fourth to one-third of the total. North of the Changjiang, the majority or 80.19 percent are group G. Groups J and E are about 10 percent each (Table 4). The incidence of high-mobility variants is higher south of the Changjiang.

When the different groups are analyzed separately, Yunnan shows the highest incidence of group E. In the north, abnormal hemoglobins from group E were not found in Jilin and Heilongjiang. For 112 cases from 15 provinces, cities, and autonomous regions published in China, the HbE structure is $\beta 26 \text{ Glu} \rightarrow \text{Lys}$. This data indicates that the high incidence of the HbE gene in Yunnan gradually decreases as one moves north and east.

Table 4. Abnormal Hemoglobin Variants in Yunnan, South of the Changjiang (excluding Yunnan), and North of the Changjiang

Areas	Yunnan	South	North
Group H--Case	0	5	0
Percent	--	1.00	--
Group J--Case	1	164	25
Percent	0.19	32.93	11.79
Group A--Case	0	3	0
Percent	--	0.60	--
Group G--Case	1	198	170
Percent	0.19	39.76	80.19
Group E--Case	515	126	17
Percent	99.62	25.30	8.02
Others --Case	0	2	0
Percent	--	0.40	--
Total --Case	517	498	212
Percent	100	100	100

Group G is found in both the south and north. The proportion is higher in the north, and the highest incidence (0.37 percent) occurs in Xinjiang. Structural analysis revealed HbG Couthatta ($\beta 22 \text{ Glu} \rightarrow \text{Ala}$) in 39 cases from 16 provinces both south and north of the Changjiang, HbG Taipei ($\beta 22 \text{ Glu} \rightarrow \text{Gly}$) in 15 cases from 12 provinces north and south of the Changjiang, HbD Punjab ($\beta 121 \text{ Glu} \rightarrow \text{Gln}$) in 9 cases from 6 provinces north of the Changjiang, HbG Taichung ($\alpha 74 \text{ Arg} \rightarrow \text{His}$) in 11 cases south of the Changjiang, and HbG Hong Kong ($\alpha 30 \text{ Glu} \rightarrow \text{Gln}$) in 13 cases. The first three types were most commonly seen in the north, while the last two were most common south of the Changjiang.

The incidence of group J variants is higher in Fujian (0.16 percent). HbJ Bangkok ($\beta 56 \text{ Gly} \rightarrow \text{Arg}$) was found in 28 cases south and north of the Changjiang; Hb New York ($\beta 113 \text{ Val} \rightarrow \text{Glu}$) was only found south of the Changjiang.

From an analysis of primary structure, the following abnormal hemoglobins have been found for the first time in China: Hb Chongqing ($\alpha 2 \text{ Leu} \rightarrow \text{Arg}$), Hb Wuming-Wenchang ($\alpha 11 \text{ Lys} \rightarrow \text{Glu}$), Hb Beijing ($\alpha 16 \text{ Lys} \rightarrow \text{Asn}$), Hb Harbin ($\alpha 16 \text{ Lys} \rightarrow \text{Met}$), Hb Shenyang ($\alpha 26 \text{ Ala} \rightarrow \text{Glu}$), Hb Shuangfeng ($\alpha 27 \text{ Glu} \rightarrow \text{Lys}$), Hb Duan ($\alpha 75 \text{ Asp} \rightarrow \text{Ala}$), Hb Guizhou ($\alpha 77 \text{ Pro} \rightarrow \text{Arg}$), Hb Liuhe ($\beta 8 \text{ Lys} \rightarrow \text{Gln}$), Hb Qionghai ($\beta 78 \text{ Leu} \rightarrow \text{Arg}$), Hb Jianghua ($\beta 120 \text{ Lys} \rightarrow \text{Ile}$), and Hb Taxkorgan ($\alpha 19 \text{ Ala} \rightarrow \text{Glu}$). Hb Wuming was found in four provinces, Hb Beijing and Hb Heilongjiang in three provinces, and Hb Duan and Hb Taxkorgan in two provinces. Some newly discovered variants such as Hb Wuming-Wenchang are not uncommon among Chinese.

Abnormal hemoglobin β chains published abroad are the following: Hb Siriraj, Hb Ankara, HbG Couthatta, HbG Taipei, HbE, Hb Lufkin, Hb Rothschild, Hb Willamette, HbJ Bangkok, Hb Hamadan, Hb Lome, Hb Calabria, HbG Szuhu,

Hb New York, HbD Punjab, and Hb Andrew Minneapolis. Abnormal α chains are the following: Hb Ottawa, HbI, Hb Handsworth, Hb Chad, HbG Hong Kong (G Chinese), Hb Queens, Hb Montgomery, Hb Russ, Hb Ube II, HbG Taichung (Q Thailand), Hb Stanleyville II, HbM Iwate, and HbO Indonesia, Hb Leiden, which lacks the β chain, is also found.

Several commonly observed hemoglobin variants such as HbE and HbG Coushatta and those first discovered in three provinces in China were included in the discussion of hemoglobin electrophoresis above. With this exception, abnormal hemoglobins found in more than three provinces in China were the following: Hb Queens, Stanleyville II, HbI, HbM Iwate, Hb Willamette, Hb Siriraj, and Hb Lome. The first three of these were seen mainly in the south.

An analysis which combines the epidemiological incidence and the characteristics of variants indicates that abnormal hemoglobins in China have a peculiar characteristic that is different from other countries.

4. Studies of the Trends of Abnormal Hemoglobins in China

Results from the study of abnormal hemoglobins in 28 provinces, cities, and autonomous regions indicate that abnormal hemoglobins in China usually show no clinical symptoms. We have found, however, HbM exhibiting cyanosis and unstable hemoglobins such as HbE. Yunnan has the highest HbE incidence of all provinces, and Dehong [1795 1347] Autonomous Prefecture (not region) has the highest incidence in Yunnan. Moreover, the incidence of β Mediterranean anemia in Dehong Autonomous Prefecture is as high as 10.95 percent.⁶ Patients suffering from severe HbE- β Mediterranean anemia were also found in the survey of hemoglobin disorders. Two factors, the high incidence of HbE- β Mediterranean anemia and the severity of the anemia, place certain minority nationalities such as the Tai [7831] in severe danger of hemoglobin disorders. Clinical treatment, genetic counseling, prenatal diagnosis, birth control, and eugenics in this region are all significant to the improvement of the health of minority populations in China.

People contributing to these studies include: Yang Xueyong [2799 1331 1661], Zhou Yuling [6650 3768 3781], Ma Fengshun [7456 6646 7311], Lu Shufang [0712 3219 5364], Zheng Zhaoji [6774 5128 1015], Zhang Jin [1728 6930], Liao Qingkui [1675 3237 1145], He Fuchang [0149 1381 2490], Lu Lianhuang [0712 5114 3552], Fu Quanzhou [0102 2938 5297], Wen Zhixun [2429 0037 1053], Ao Zhongfang [2407 1813 5364], Ma Lanfang [7456 5695 5364], Ye Mingang [0673 3046 0474], Tan Weiquan [6223 3262 3123], Wu Xiaofen [0702 4607 5358], Yu Zuxiang [4416 4371 4382], Guan Pengsheng [4619 7720 5116], Yao Ergu [1202 1422 0942], Liang Jinquan [2733 2516 0356], Li Dajun [2621 1129 6874], Guan Xiangning [7070 3276 1380], Zhang Chunyuan [1728 2504 3293], Yan Jiayi [2518 1367 4135], and Sun Zhixin [1327 1807 2450].

REFERENCES

1. Salzano, F.M., Tondo, C.V., "Hemoglobin Types in the Brazilian Population," HEMOGLOBIN, 6:85, 1982.

2. Schneider, R.G., et al., "Abnormal Hemoglobin in 250,000 People," BLOOD, 48:629, 1976.
3. Hemoglobin Disorder Research Group from 18 Provinces (Regions and Cities), "Study of Hemoglobin Disorders and the Epidemiology of Glucose-6-Phosphate Dehydrogenase Deficiency in 18 Provinces, (Regions and Cities)," CHINESE JOURNAL OF HEMATOLOGY, 6:450, 1985.
4. National Hemoglobin Disorder Research Group, "Survey of Hemoglobin Disorders Among 600,000 People in 20 Provinces (Regions and Cities)," CHINESE JOURNAL OF MEDICINE, 63:382, 1983.
5. Hemoglobin Research Group, "A Survey of Abnormal Hemoglobin in 125,351 Cases in 14 Provinces (Regions and Cities)," CHINESE JOURNAL OF HEMATOLOGY, 3:258, 1982.
6. Yang Xueyong, et al., "Research in Areas of High Hemoglobin Disorder Incidence in China. I. Survey of Hemoglobin Disorders in Southwest Yunnan," GENETICS AND DISEASE, 2:10, 1985.

13015/9365

CSO: 5400/4104

FAST SOUTHWARD MIGRATION OF AIDS NOTED

Johannesburg THE STAR in English 3 Jan 87 p 3

[Article by Jaap Boekkooi]

[Text]

There are now thought to be more than 100 000 AIDS victims in Africa — and a million people are expected to die from it within the next decade.

Two gloomy reports on AIDS just released show that its fast southward migration in Africa will infect 6 000 babies in Zambia this year.

In South Africa, AIDS is still mainly a "white" disease — but a black one north of the border.

Dr Ruben Sher, head of the Serology Department of the South African Institute for Medical Research, says: "No babies have yet been infected with the AIDS virus through their mothers as far as we know, but we are taking the necessary precautions to see whether our blacks are picking up the disease, and these will be intensified this year."

Is there a difference between the "African" AIDS virus — which may soon leap the Limpopo — and the virus which has entered South Africa mostly by air from the United States and Europe?

Scientists in many countries are not sure. So far no key differences have been found, but as one South African expert put it: "There are changes even in the viruses found in New York and San Francisco."

One of the problems in developing an AIDS vaccine is that the virus is a fickle creature: it mutates like so many flu organisms.

Originally AIDS was thought to have originated in Africa, especially in Uganda where it was known as "slim disease". It wasted its victims to death through persistent diarrhoea.

UNCERTAIN

But theories that it came from Africans remain unproven. Some scientists say it might have originated in Haiti, South America, or even in a laboratory in the United States itself.

The Panos Institute in London, a British research organisation headed by former Earthscan director Mr Jon Tinker,

has quoted Zambian doctors' estimates that that country will have 15 times the number of AIDS-infected babies by the end of the year as America.

Zambia is at the southernmost point of Africa's spreading AIDS belt, which ranges from Kenya — where six out of 10 Nairobi prostitutes are infected — to Lusaka, where one in three blood donors between 30 and 35 were found to carry the virus.

In some African countries, a fifth or more of the urban population are doomed to die from the disease.

Although Asia and South America have not yet been affected much by the epidemic, the World Health Organisation's AIDS programme director, Dr Jonathan Mann, thinks Brazil now has the potential for an African-style epidemic and that the virus is also "knocking on the door" of Asia's most prostitution-rife city, Bangkok.

/9317

CSO: 5400/85

TOP MEDICAL EXPERTS PUT AIDS IN PERSPECTIVE

Johannesburg THE STAR in English 4 Jan 87 p 9

[Excerpts]

Professor Jack Metz, director of the South African Institute for Medical Research and Dr Ruben Sher, head of the Institute's Serology Unit, are leading figures in South Africa's war against AIDS — from ongoing research to continuing routine testing.

In this analysis prepared for The Sunday Star, the two men have put the disease in perspective.

No-one, they say, should minimise the threat of AIDS in all countries in the world, including South Africa.

But the disease must be seen in relative terms — relative to the two million who die of tuberculosis throughout the world every year; to the six million children who die of diarrhoeal diseases; to the hundreds of thousands of people who die of malaria.

Professor Metz and Dr Sher emphasise that the greatest factor in the spread of the disease is promiscuity.

And because of this the only way of controlling AIDS is to persuade the public at risk, through education, to change their lifestyle.

Contrary to popular belief, AIDS is a difficult disease to transmit.

In spite of this, the public and health care workers have a paranoid fear of contracting it and are afraid to interact casually with AIDS patients. There is certainly no reason, they say, to ostracise anyone with AIDS.

Since 1982, when cases were first detected in this country, a total of 37 South Africans with AIDS have been diagnosed.

All have been white males and 32 were homosexual or bisexual. 32 have died.

Then there are the millions of black South Africans, candidates for the so-called African AIDS, but in whom no AIDS cases have yet been identified.

ABOUT two million people die of tuberculosis every year throughout the world, and some 10 million new cases occur.

Many children with TB develop meningitis, and studies from Cape Town indicate that only 15 percent will recover without permanent mental damage.

Six million children in the world die every year from diarrhoeal diseases. Millions of people get malaria and probably hundreds of thousands die of the infection annually.

Why should an article on AIDS start with figures on TB, diarrhoea and malaria?

The object is to put AIDS in perspective as a health problem.

Over the past six years about 31 000 cases have been reported worldwide, with about 20 000 deaths.

Why should AIDS be receiving so much attention in the media?

AIDS has been dubbed the "media disease" because it has all the ingredients that interest the public — sex, blood, death, "royalty" (in the form of Rock Hudson), and the possibility of a worldwide epidemic.

But what are the facts, devoid of sensationalism: and particularly, what is the present situation in South Africa and the outlook for the future?

AIDS in South Africa

Since 1982, when cases were first detected, a total of 37 South Africans with AIDS have been diagnosed. All have been in white males and 32 were homosexual or bisexual. 32 have died.

So far the pattern of AIDS with regard to the risk groups in the white population is similar to that of other Western countries.

Then there are the millions of black people, candidates for the so-called African AIDS but in whom no AIDS cases have as yet been identified.

The incidence of the infection in intravenous drug abusers is assuming alarming proportions in Western countries, yet studies have shown that the virus has not yet reached this group in South Africa.

AIDS in the black states to the north of South Africa is spread mainly by heterosexual intercourse, inadequately sterilised needles and syringes, transfusion of unscreened blood, and infection of newborns by infected mothers.

Prostitutes and concubines play a significant role in the spread of AIDS in central Africa.

The most striking epidemiological feature of the first cases detected there was that they occurred in the cities in affluent males who had frequent sexual contact with such women.

What are the chances that the African pattern of AIDS will spread to black South Africans?

It is inevitable that cases will eventually occur here.

It has, in fact, been suggested that AIDS may be present in the rural areas and is not being brought to the notice of the health authorities.

This is unlikely, however, as AIDS in Africa is predominantly a disease of the cities.

For example, 18 percent of people tested in the capital of Rwanda have antibodies, but only three percent in rural areas.

Also, the study of black South African mineworkers, most of whom come from rural areas, showed a low incidence of exposure.

There are fortunately factors that may delay spread in the local black population.

Firstly, there has been little contact between local black populations and the people of central Africa.

Secondly, whereas no positives have been found in the 1 500 black prostitutes tested so far in South Africa, the incidence in prostitutes in many other African countries is high.

For example, 66 percent of prostitutes in Nairobi have antibodies to the AIDS virus.

It is also most unlikely that the virus will be spread through contaminated blood used for transfusion, or by the use of syringes or needles.

In most African countries blood for transfusion is not tested for possible contamination, whereas this form of transmission has been virtually eliminated in South Africa through the universal testing of all blood before transfusion.

THE spread in most African countries is promoted by the custom of using hypodermic syringes and needles repeatedly, as disposables are too expensive. In South Africa, by contrast, there is almost universal use of disposables, at least in most hospitals.

Also, in other African countries injections are often given by untrained staff or traditional healers.

The risk of infection in these states is likely to be substantially reduced if measures are taken to prevent transmission of the virus through injections and blood transfusions.

It must be emphasised that the exact scope of the AIDS problem in Africa is unknown.

To date, only about 1 300 cases have officially been reported to the World Health Organisation, but this is certainly a gross underestimate because of the reluctance of many African countries to report their cases.

However, estimates of millions of infected people in Africa may also be an overestimate, as they are calculated by extrapolation of small, often highly selected, samples.

As yet, figures in countries other than South Africa are to a large extent speculative.

Although no one disputes that Africa has a serious problem, statements that AIDS could kill half the population in some countries are speculation.

What has been done about AIDS in SA

Much has been accomplished by the health authorities in regard to AIDS.

Two years ago, when only 14 cases of AIDS had been reported in South Africa, the Department of National Health, in keeping with what was being done in a number of Western countries, appointed a national Advisory Group on AIDS.

THE group, drawn from all over the country, is made up of experts in the relevant fields of virology, immunology, haematology, blood transfusion, epidemiology and infectious diseases.

The group set up a mechanism to record the number of cases of AIDS.

This has enabled the spread of the disease to be monitored at regular intervals.

Although it is purely advisory and has no executive function, the group has promoted studies on the prevalence of AIDS virus carriers among high-risk groups, such as homosexuals, intravenous drug abusers and prostitutes.

Large-scale population studies have been undertaken by the mining industry, and much data have accumulated from the testing of blood donors by the blood transfusion services.

As a result, South Africa has at its disposal a great deal of information on the number of people who have been exposed to the virus.

This is due largely to the many people tested by the blood transfusion services (almost 1 million blood donations have now been tested) and the large sample (300 000 specimens) drawn as part of the prevalence study among mine labourers.

The blood transfusion samples cover all population groups, mainly urban dwellers but includes many people living in rural areas.

The incidence of antibody positivity is 6 per 100 000.

The mines survey complements the blood transfusion data, for it comprises mainly people from rural areas.

Among black South Africans, including those from Transkei, Ciskei, Venda, Bophuthatswana, only 0.09 percent were found to be infected, possibly the lowest incidence of any black population so far examined.

From the start the Advisory Group recognised the importance of education in the prevention of AIDS.

As the cases in South Africa two years ago were confined almost entirely to male homosexuals (and remains so to this day), attention was initially focused on education among this group.

IN common with the approach adopted in other countries, education among homosexuals was undertaken by organisations within the homosexual community itself.

Thus the group liaises with the Gay Association of South Africa (GASA).

A year ago the group turned its attention to the education of the public primarily through health care workers.

A pamphlet was prepared for the Department of National Health and is now being distributed.

Testing for AIDS antibodies in everyone suspected of having been exposed to the infection has been made free and the centres where such testing can be done have been designated and publicised in the SA Medical Journal.

The future of AIDS in South Africa

No one should minimise the threat of AIDS in all countries in the world, including South Africa. Potentially it is a major problem in this country and this should stimulate a redoubling of efforts to contain its spread.

What is the outlook for the future of AIDS in South Africa?

Predictions need to be based on the number of people infected with the virus (carriers) and who are potential cases of AIDS, rather than on the actual AIDS cases.

Figures for black South Africans are available and to date the incidence of infection is extremely low.

As to the predominantly homosexually-spread Western AIDS, studies have been done on the incidence of carriers among local homosexuals, but the number of practising homosexuals is not known, and the size of the infected pool is pure guesswork.

In South Africa, as in Britain, the infection is so far virtually confined to the groups at risk, but this situation can change unless people modify their behaviour to accord with what is now known as safe sex.

AIDS BOOKLET SAID TO BE USELESS

Johannesburg THE SUNDAY STAR in English 4 Jan 87 p 4

[Article by Liz Clarke]

[Text]

THE Department of National Health and Population has produced its first information pamphlet on Acquired Immune Deficiency Syndrome (AIDS) — but its impact will be virtually nil.

According to a spokesman for GASA (the Gay Association of South Africa) the most important information has been excluded.

"Safe sex practices are what people need to know," he said. "We cannot afford to be coy any more. When the threat of incurable disease is staring one in the face, then you have to state facts that even schoolchildren can understand."

The booklet recommends the use of condoms, and states that it is "probably safer not to indulge in wet kissing."

"Without more explicit facts about safe sex and who is at risk, the booklet is of no real use."

He said that the other neglected area was the "back-up" counselling and advice network that was absolutely imperative in any national campaign.

The booklet, compiled by The Advisory Group on AIDS in both official

languages, suggests that people who are at risk for developing AIDS should see a doctor who will arrange a blood test.

"But then what? Surely the pamphlet should contain information about every organisation that can assist?"

Dr Ruben Sher, a member of the advisory group, said the information contained in the booklet had been compiled about a year ago.

"There is new information coming in all the time, but one has to make a start somewhere in educating the public."

The GASA spokesman said that if the department was planning a series of pamphlets they should now concentrate, not so much on the medical nature of the disease, but on the "nitty gritty" facts that people want to know.

"Things like how risky is it to sit on a public loo seat, whether dentists and hairdressers should take special precautions, how initial blood tests, whether negative or positive, are not conclusive, and itemised plan-of-action advice to high risk groups."

/9317

CSO: 5400/85

RABIES SPREAD IN NATAL

Johannesburg THE STAR in English 6 Jan 87 p 15

[Text]

DURBAN — Rabies in Natal was more dangerous than ever, the acting head of the State Veterinarian Department in Natal, Dr Max Bachmann, said in Maritzburg yesterday.

With cases of human deaths reported from isolated rural areas, and rabies confirmed in 20 magisterial districts for the first time in 20 years, the department was struggling to cope, Dr Bachmann said.

The 88 cases confirmed last year were fewer than in previous years, but the overall distribution was the most widespread.

"For the first time, rabies is right up against the Berg, in the Mooi River and at Underberg magisterial districts.

CAN'T CONTAIN IT

"And looking at a map of Natal, every district along the coast, from the Tugela in the north down to Port Edward on the Transkei border, shows cases.

"That is where we can't contain it. It is getting steadily worse and we don't have the ability to control it within our framework."

He said reports of human deaths had come from Transkei and from the Matatiele region.

Unrest had made it dangerous for staff to carry out their usual inoculation programmes.

Black staff from the Department of Health were being co-opted and gazetted to take over.

Dr Bachmann said the worst concentration of rabies was in the Umzinto area near Port Shepstone.

Since Christmas another four cases in dogs had been confirmed there.

/9317

CSO: 5400/85

AIDS REPORTED WIDESPREAD IN PRISON POPULATION

Madrid TIEMPO in Spanish 15 Dec 86 pp 141-146

[Article by Mariano Sanchez]

[Excerpts] AIDS is spreading in Spanish jails. Half of the inmates tested are infected. If something is not done, 12,700 people will continue to transmit the disease. A total of 326 inmates who have been in the General Penitentiary Hospital since January have the AIDS virus in their blood, and another 11 have died showing symptoms of the disease. Meanwhile, the Directorate of Penitentiary Institutions is silencing the epidemic.

At present, 16 patients at the Carabanchel prison hospital have the AIDS virus, and around 40 show symptoms of pulmonary tuberculosis and hepatitis, diseases that manifest themselves together in heroine addicts who have been infected with the VIH virus.

"Several patients here are suffering from fully developed AIDS," says Miguel Arana, the medical director of the General Penitentiary Hospital. "At the last study in November the 'Elisa test' came out positive in 33 cases. This does not mean that they have the disease, and we are waiting to see whether AIDS develops, because the virus has a long incubation period, up to 6 years. When an opportunistic infection appears, we take specific action. It is true that patients who have come here have died and had the virus, but there is some doubt about whether it was the ultimate cause."

The absence of weapons to attack AIDS, the reluctance to disseminate information and shortcomings in hygiene have contributed to the burgeoning epidemic in Spanish jails. As several Penitentiary Institutions physicians assert, "there are reasons for its spread in jails. There is a lot of homosexuality and drugs. The heroine addicts use the same needles, they share them. A high-level official said recently that to stop AIDS from spreading, needles would have to be handed out. And how are they supposed to be handed out when drugs officially do not exist in jails, when they are banned? We have a concentration here of carriers of the virus, young criminals from slums. The living conditions facilitate the spread of infection."

From January to 8 November, when the most recent AIDS testing was conducted, 326 inmates tested positive as carriers of the VIH virus, incubating and

transmitting it even though the disease does not manifest itself as such. The number is based on the tests conducted on 644 inmates who could be carriers of the virus. Testing all of Spain's 25,403 inmates would no doubt yield an alarming figure. According to the hospital report, 50 percent of the inmates tested are carriers of the AIDS virus. If we extrapolate the number to the entire prison population, 12,700 people are infected with the VIH virus.

Any attempt to downplay the issue is countered by the latest WHO document from Europe: "The lengthy incubation period hampers diagnosis in the early stages of the disease and makes controlling the spread of the infection difficult and uncertain."

Fear of Infection

Officially, no Spanish inmate has died of AIDS, but all of the health care personnel who come in contact with these AIDS-infected patients are taking precautions. Physicians, paramedics and nurses have been given the Elisa test to determine whether the virus has been transmitted to them on the job, although the Europe-wide statistics on the epidemic show only four or five instances in which health care personnel have been affected. "We physicians are at serious risk. Any doctor or nurse could accidentally break the skin while suturing a wound and become infected. We have taken the test and luckily none of us has the virus."

Such precautions are not universal, however. The cook in the prison hospital, inmate Viejo de las Heras, still prepares the meals for the hospitalized prisoners even though last 14 March he tested positive for the AIDS virus.

Viejo de las Heras is a carrier of the VIH virus, and there is no guarantee that in his current job he will not infect his colleagues if he cuts himself with a knife or while handling food with the usual utensils. According to the WHO, "there is no evidence" that the virus is transmitted by casual contact, coughing or sharing of food; it is not giving complete assurances, however, that methods of transmission other than through blood can be ruled out in the future.

As the epidemic spreads, with some 1,600 AIDS patients in Europe and another 100,000 Europeans who could be carrying the virus, prisons are already a hotbed of infection owing to their crowded living conditions. According to the Society and Prisons Group, the General Directorate of Penitentiary Institutions "is more afraid of the labor, hygiene-related and social grievances of the inmates and officials than of the magnitude of the epidemic and the problems it entails."

Recently, 127 inmates at the Ocana-1 prison sent the director general of Penitentiary Institutions, Andres Marquez Aranda, a letter in which they ask to be tested for the AIDS virus. The Ocana-1 inmates complained about unsanitary, unhygienic conditions at the prison, specifying the lack of hot water for showers, clogged toilets, insufficient cleaning products, the lack of heat and of elementary hygiene, prompting "the appearance of bedbugs, mice and lice."

Meanwhile, the General Directorate of Penitentiary Institutions remains silent. Somewhat to the displeasure of officials in the Medical Department, Dr Jesus Ramirez has been appointed adviser to the director general for medical affairs. People in the Directorate of Penitentiary Institutions look askance at management having ignored the promotion roster, but the fact is that Dr Ramirez, who will combine his new post with his job at Social Security's Primero de Octubre Hospital, comes directly from the prison hospital, where he has treated the inmates suffering from AIDS. According to the Assistant General Penitentiary Directorate, he has "all of the facts about the inmates suffering from AIDS." Dr Ramirez, however, says that his appointment "was not due to his research into AIDS. At the hospital we were very encouraged by the early results, which showed the patients getting better, but the problem must be seen in greater perspective, perhaps when more time has passed."

When asked about the unrest in the Ocana-1 jail, where petitions calling for the resignation of the warden, Gabino Castilla, have been circulated and complaints have been voiced about an inmate population of 654 in a jail with room for only 200, Dr Ramirez exclaimed: "Oh, the petition for the AIDS test? The only thing they want at the Ocana prison is information on a problem that worries some inmates."

8743

CSO: 5400/2422

BRIEFS

MALARIA EPIDEMIC IN COLOMBO--Colombo has become a hot bed of P. Falciparum Malaria with the disease reaching epidemic proportions according to the latest reports compiled by the health authorities. During the month of September 1986, 83 cases of Falciparum Malaria had been reported in Colombo MOH area while the P. Vivax Malaria figure stands at 273 during the same month. Since last January, the number of P. Falciparum cases reported is increasing fast in Colombo MOH area, according to these statistics. 36 cases in January, 33 in February, 19 in March, 29 in April, 50 in May, 69 in June, 89 in July, 92 in August and 83 in September have been reported, while 1933 of P. Vivax positive cases have been detected during these nine months in Colombo. The total number of P. Falciparum Malaria cases detected in the island in January stood at 2847 while the figure had risen up to 5373 in September '86. Badulla MOH region recorded 1585 Falciparum cases in September while the figure at Anuradhapura stood at 1400. Anuradhapura area has recorded a total of 10383 Malaria cases during September this year while the total number of Malaria cases reported in Sri Lanka during the month of September is 30525. [Text] [Colombo THE ISLAND in English 8 Dec 86 p 1] /9317

CSO: 5400/4704

TURKEY

BRIEFS

INFECTIOUS HEPATITIS EPIDEMIC WARNING--While the season's disease, hepatitis, spreads rapidly across the entire country, three children have died of bacterial hepatitis in Denizli. It is reported that the consumption of unwashed vegetables and fruits is causing the hepatitis epidemic, which the Ministry of Health and Social Assistance has identified as a disease which must be reported. While 63 hepatitis patients are being treated in various hospitals in Denizli, Nahide Akbas, 16 days old, Mehmet Kocabas, 2 months old, and Sevim Altin, 3 months old, died of the disease. [Text] [Istanbul MILLIYET in Turkish 4 Nov 86 pp 3,14] 9588

CSO: 5400/2417

BANGLADESH

BRIEFS

CATTLE DISEASE IN RAJBARI--Rajbari, Dec 2--Cattle disease has broken out in an epidemic form in different unions of Baliakandi upazila claiming lives of a good number of heads of cattle for sometime past. The worst affected unions are Narua and Gongal unions. It is learnt that due to scarcity of medicines in the area, no proper measures are being taken to curb the disease. [Text] [Dhaka THE NEW NATION in English 4 Dec 86 p 2] 9312

CSO: 5450/0066

BRIEFS

RABIES OUTBREAK IN SASKATCHEWAN--Edmonton (CP)--Skunk and rat patrols have been stepped up along the Alberta-Saskatchewan border as a result of a serious outbreak of rabies in Saskatchewan. Ralph Christian, director of animal health for the Alberta agriculture department, said several hundred skunks and even more rats have been destroyed to prevent any rabies-infected animals from invading the province. Most of the animals have been destroyed in a 29-kilometre (18-mile) buffer zone between the two provinces, he said. Six officers are patrolling the strip. [Text] [Toronto THE SATURDAY STAR in English 27 Dec 86 p A14] /7358

CSO: 5420/10

LIVESTOCK VACCINATION CAMPAIGN TO BEGIN

Niamey LE SAHEL in French 4 Nov 86 pp 1, 3

[Article by Soule Manzo]

[Text] The national livestock vaccination campaign will get underway in early December except in the Department of Diffa, where it will be carried out before that.

Austerity will be the keynote of the 1986-1987 campaign, which is part of the pan-African campaign against rinderpest and which will be extended to cover small ruminants. The shortage of funds makes austerity essential!

The fact is that since the focuses of rinderpest in the administrative posts of Torodi (Niamey) and Falmey (Dosso) and the focus of camel scab in Tasker (Zinder) were brought under control during the preceding campaign, the veterinary services will restrict themselves to preventive action and the fight against certain respiratory and parasitic diseases and vitamin deficiencies while also working in particular to consolidate the gains already achieved in the fight against the major epizootics.

This means that as part of the 1986-1987 campaign, 400,000 doses of rinderpest vaccine and 200,000 doses of vaccine against contagious bovine pleuropneumonia will be sent to the Department of Diffa in the immediate future. This express shipment of vaccine could be explained by the threat represented by the survival of rinderpest and contagious bovine pleuropneumonia along Nigeria's northeastern border.

To combat those two diseases in Nigeria, Burkina, Mali, Sudan, and Ethiopia, the EEC has made 50 million ecus (1 ecu = 340 CFA francs) available for use in two phases involving the expenditure of 25 million ecus each. Niger, which will probably receive financing during the second phase, will carry out its campaign with 400,000 ecus left over from the fourth and fifth EDF's [European Development Funds]. And, as was true during the last campaign, it is the EDF which will provide the logistics in the Departments of Agadez, Dosso, Niamey, and Tahoua, while the Departments of Zinder, Maradi, and Diffa will be the responsibility of the Center-East Niger Project.

For the 1986-1987 campaign, 3,817,000 doses of rinderpest vaccine will be needed, and 1,836,000 doses of pleuropneumonia vaccine will be required. Three million pleuropneumonia doses are now being delivered, and the Niamey Central Stockraising Laboratory is preparing to produce 3.13 million doses of rinderpest vaccine to supplement the existing inventory of 73,500 doses. Meeting in special session from 20 to 23 October 1986 in connection with the 1986-1987 campaign, cadres from the Ministry of Animal Resources decided in favor of a plan for carrying out the campaign by arrondissement. In that connection, they recommended the recruitment of auxiliary personnel to be paid for out of the national investment budget for 1987. That auxiliary personnel will help collect data for the stockraising sectorial survey.

To meet the needs of the campaign, those employees will be organized into mobile teams that will travel in the opposite direction from that being followed by the livestock.

Preparations for the campaign are progressing well at the moment, since the team responsible for maintenance and repair of the refrigerating equipment (for preserving the vaccine) is now ready to go to work both in Niamey and in the interior.

That sums up this vaccination campaign, for which several efficiency-improving measures representing general guidelines have been ordered: the merger of the Central Stockraising Laboratory and the Veterinary Pharmacy into a single industrial and commercial establishment, revision of the legislative texts dealing with health measures, and a study of ways and means for gradually transferring responsibility to the stockraisers. This last is a measure based on internal and particularly external contingencies, and it is aimed at leading stockraisers to participate in the repair or construction of vaccination sites and gradually to take responsibility for the cost of carrying out health measures.

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DROUGHT CAUSING TEAKWOOD DISEASE IN MAHARASHTRA

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[Text]

Bombay, Dec 17 (PTI) — The 'mysterious' disease affecting teakwood forests in the Melghat tiger preserve may after all be due to the severe drought in the State, forest department and forestry experts say.

Teak trees, though a product of dry deciduous forests, require plenty of calcium from the soil, which they draw when the roots reach the water table.

Besides, the lentina shrub, which grows along with teak in the dry deciduous forests, competes for this calcium, resulting in insufficient quantities available for the tall teakwood trees.

Lack of calcium affects the leaves first, which cannot survive without it and premature leaf — drop of teak begins in early winter rather than in early summer leading to gradual peeling off of the bark, experts say. The tree then dies within a few weeks.

The phenomenon is not new. According to experts, there was a record of such a disease being noticed by foresters in the Allapalli area in Gadchiroli district as early as 1868 and also in 1921.

The disease first appeared in the Melghat forests in 1980, when forest department officials had to retrace

clear felling orders in a 2000-hectare plot in the Daruda range, where majority of the trees were found to have died unnaturally.

Constant export of bio-mass from forests with each clear-felling undertaken either by local authorities or by Forest Development Corporation of Maharashtra, has also affected teak trees in the forests there, including that of Melghat. The bio-mass is never returned to the original eco-system and many minerals required are never replenished, experts say.

They have averred that replenishment of teakwood forests by re-plantation after clear-felling has not been successful to the extent planned. Survival rate of re-plantation has come down to between 40 and 50 per cent, despite best possible protection given to re-planted trees.

Successive drought since 1980, a result of degradation of green cover and unscientific method of clear-felling, have been the major causes for the "mysterious" disease which might result in disappearance of teakwood species from dry deciduous forests of Maharashtra in another 50 years, experts fear.

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